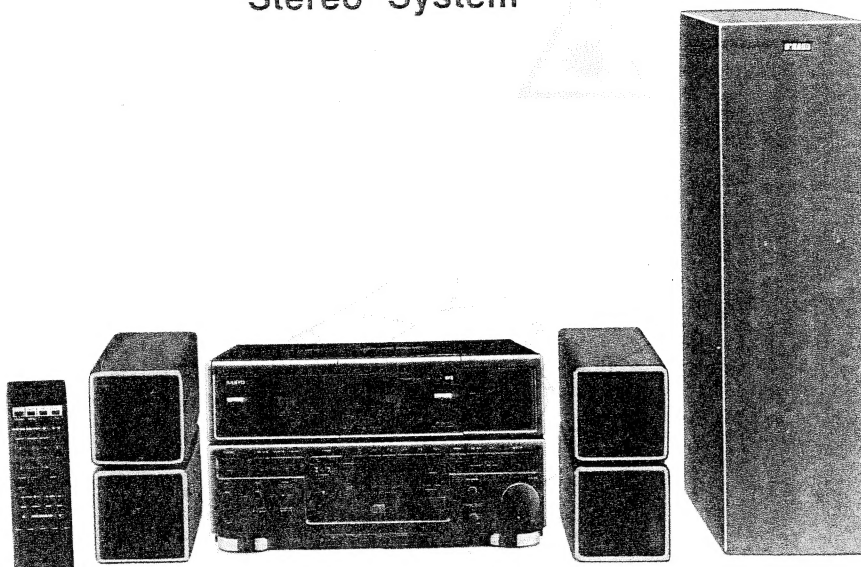# SANYO

Service Manual

Compact Disc Hi-Fi Stereo System

DC - SF3 (WEST GERMANY) (ITALY)

Specifications

Tuner

Frequency range	FM : 87.5 - 108 MHz
	MW : 522 - 1,611 kHz(W.Germany)
	MW : 526.5 - 1,606.5 kHz(Italy)
	LW : 144 - 290 kHz(W.Germany)
	LW : 148.5 - 283.5 kHz(Italy)
Sensitivity	FM : 2μV (mono)

Amplifier

Output power	Max. 15W + 15W + 25W (10% THD)
Input sensitivity / impedance	PHONO : 7mV / 50k ohms
	VIDEO : 150mV / 50k ohms
Tone control	MID : 1 kHz +/- 8 dB
	HIGH : 10 kHz +/- 8 dB

Cassette decks

Track system	4-track, 2-channel stereo
Frequency response	Chrome tapes : 40 - 15,000 Hz
	Normal tapes : 40 - 13,000 Hz
Signal to noise ratio	58 dB(with DOLBY NR : ON)
Wow and flutter	0.12% (WRMS)
Fast forward / rewind time	Approx. 120 sec. (C-60)

CD player

Channels	2-channel stereo, L / R in phase output
Sampling frequency	44.1 kHz
D / A conversion	16-bit linear twin D / A converter
Pick-up	Optical 3-beam semiconductor laser
Frequency response	5 - 20,000 Hz
Total harmonic distortion	0.03% (1 kHz)
Signal to noise ratio	90 dB
Wow and flutter	Below measurable limits

Specification subject to change without notice.

General

Power requirements	AC : 220V, 50HZ
Power consumption	90W
Dimensions(approx.)	360 (W) × 208 (H) × 330 (D) mm
Weight(approx.)	7.8 kg

Speaker systems

Overall frequency response	50 - 20,000Hz
(L / R speakers)	
Type	Airtight full range dual speakers
Unit used	8 cm cone type × 2 (integrated)
Power handling capacity ..	Max. 30W (peak)
Nominal impedance	8 ohms
Dimensions(approx.)	102 (W) × 208 (H) × 250 (D) mm
Weight(approx.)	2 kg (per speaker)
(Dynamic bass speaker)	
Type	Bass reflex
Unit used	12 cm cone type
Power handling capacity ..	Max. 50W (peak)
Nominal impedance	4 ohms
Dimensions(approx.)	150 (W) × 570 (H) × 320 (D) mm
Weight(approx.)	4.6 kg

RB-SF3 remote controller

Power source	DC : 3 V "R6/HP 7" battery × 2
Dimensions(approx.)	60 (W) × 18 (H) × 190 (D) mm
Weight(approx.)	50 g without batteries

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ▯▯ are trademarks of Dolby Laboratories Licensing Corporation.

LASER BEAM SAFETY PRECAUTIONS

Do not look directly at the laser beam coming from the pick-up or allow it to strike against your fingers, skin, etc.
Do not apply power if there is a broken part in the laser output section of the pick-up.

Structural Safety Interlock
This model has a disc chuck lever and top lid. This disc chuck lever and top lid prevent to expose the laser beam for users.
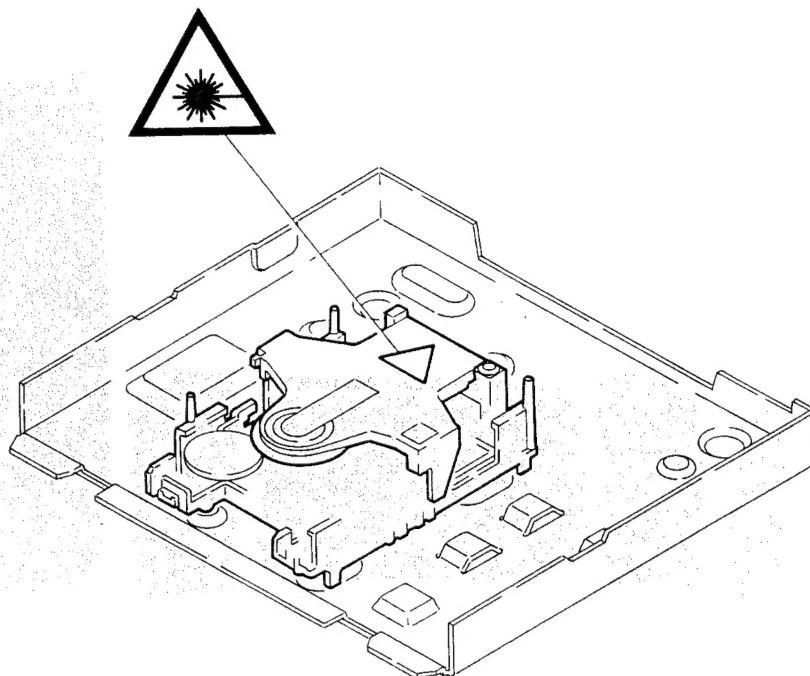
HANDLING THE PICK-UP

1. Shipping and storage cautions
a. The pick-up must be stored in a conductive bag until immediately prior to its use.
b. Do not drop it or subject it to impacts.

2. Repair cautions
a. When handling the pick-up, be careful not to give it undue force or shock by your hands. Otherwise the pick-up may malfunction or the PCB may be cracked.
b. The pick-up which has been minutely adjusted before shipment as one part. Never touch and move the adjusting points and setscrews of the pick-up unless otherwise described in the item of adjustment to avoid damage.

c. A strong magnet is used in the pick-up.
Do not bring a magnet or other magnetized object near to it.

3. Cleaning the lens
* If dust gets on the lens, clean it away by using an air brush such as used for a camera lens.
* The lens is held in place by a spring.
If the center of the lens is dirty, carefully clean it using cotton swab moistened with isopropyl alcohol. Since special coating is made on the surface of the lens which is made of plastics, do not use other kind of alcohol and cleaning fluid to prevent damage to the lens. Also, be careful not to bend the lens spring when cleaning.

BEFORE REPAIRING THE CD PLAYER
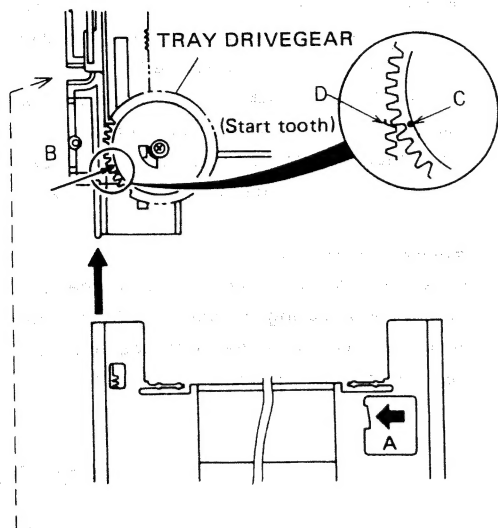
1. Preparations
a. Many ICs, LSI and the Pick-up (laser diode) are used in the compact disc player. These components are sensitive to static electricity, and might be damaged by static electricity or high voltage, so particular care should be taken regarding this point.
b. Many precision components and the lens are used in the pick-up.
Never attempt to make repairs, or to store parts, where the temperature or humidity is high, where magnetism is strong, or where there is much dust.

2. Notes regarding repairs
a. Be sure to first disconnect the power plug before attempting to replace any component.
b. All tools, instruments, etc., used for measuring must be grounded.
Grounding can be accomplished by using conductive metal sheet on the work bench.
c. To prevent AV leakage of the soldering iron, ground its metal part.
d. Repair personnel must be grounded.

DISASSEMBLY (CD MECHANISM)

1. Removal of DISC TRAY

TRAY DRIVEGEAR

(Start tooth)

B

D C

A

(If the left slide obstructs the special screw, tune the PICK-UP drive gear a little.)

a. Drive the mechanism to open end. OPEN / CLOSE Switch : Push ON
b. Pull the TRAY off the mechanism. (Push the A rib of the TRAY to the direction of arrow and free from chassis rib.)
c. Turn the PICK-UP drive gear (under chucking lever) slowly manual forward clockwise and move the slide to the front end.
d. Match the guide groove of TRAY to the chassis guide and insert to the direction of arrow.
e. Insert the TRAY to the mechanism after to match the C (tooth bottom) to the D (starting tooth) of TRAY rack. Then complete the close motion by OPEN / CLOSE Switch : Push ON.

Note : Never tune the TRAY drive gear by hand directly in the all mechanism adjustment so that you will not wound the teeth of the TRAY drive gear.

2. Removal of CD Mechanism

a. Removal of the chuck lever
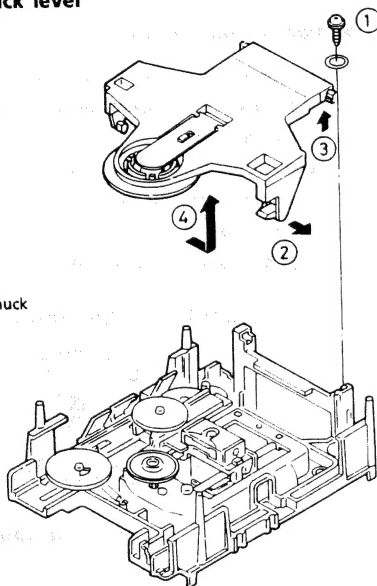
Pull the flange ③ of the chuck lever to the outer side.

b. Removal of the sled motor

c. Removal of the spindle motor
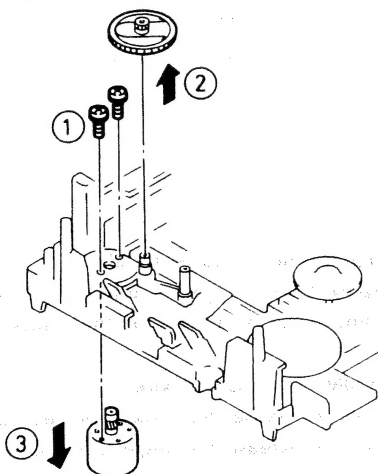
• First, prepare the new turn-table and new special washer for replacement. And prepare dial-type calipers. The removed turn-table will be deformed by the heat of the soldering iron, and cannot be reused.

a. The attached bonding material can be dissolved by using a 60W soldering iron to heat the shaft at the lower part of the turn-table for about one minute.
b. The turn-table can then be removed from the shaft by very carefully applying force upward at the center of the lower surface of the turn-table.
c. Remove the two screw and remove the spindle motor.
d. Attach the special washer to the spindle motor.
e. Apply a small amount of a mixture(50 : 50) of the "Three Bond 2001" and "2105F" bonding materials to the motor's shaft.

DISASSEMBLY (CD MECHANISM)

f. Install the turn-table as shown in the figure.

g. Secure the tune-table by pressing gently. Be sure to wipe away (by using a piece of cloth, or similar material) any bonding material coming out of the hole.

Don't attached bonding material at the top of shaft

Bonding material

Special washer

(CHASSIS)

Be sure to wipe away the bonding material

CHUCK PULLEY

17.1 ± 0.1mm

RAIL UPPER SIDE

SPINDLE MOTOR SHAFT
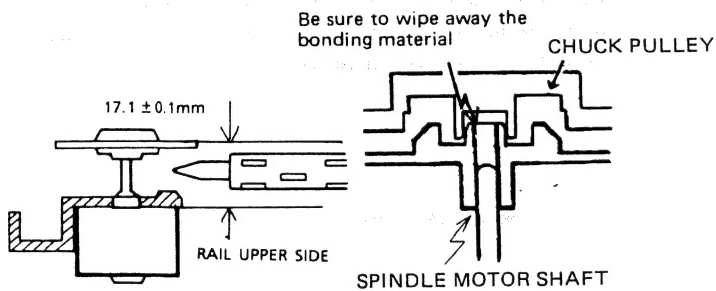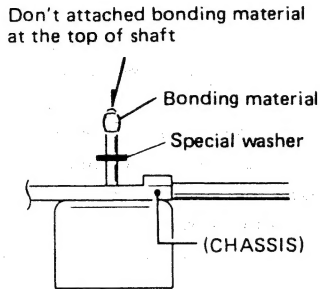
d. Removal of the Pick-up
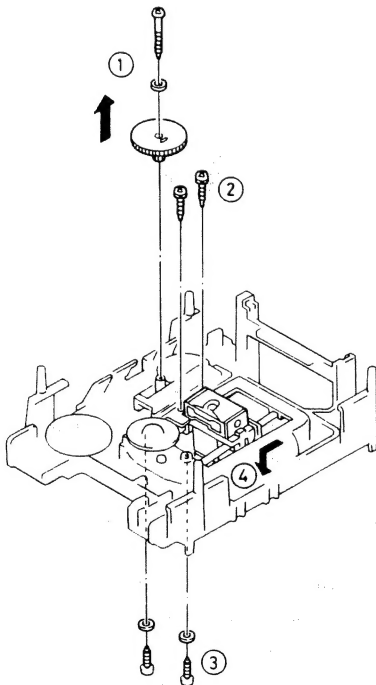
e. Replacement and lubrication of the Pick-up

a. Before replacement of the pick-up, be sure to carefully read the section regarding the pick-up when the unit is moved or transported.

b. Remove the two pick-up rail with care fixing the 2 latch with any way driver from bottom of chassis.

c. When replacing the pick-up, carefully wipe away the grease from the shafts on which the pick-up is mounted.

d. Replace the pick-up.

e. Move the pick-up to the position at the left side, and then apply a coating of floil (G-474B) to the shafts.

f. Move the pick-up to the right side and apply floil to the remaining of the shafts.

PICK - UP

SHAFT

SHAFT
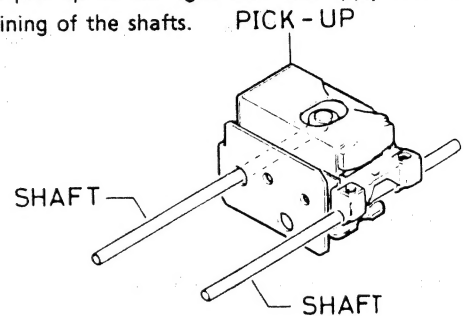
f. Inspection of slip current

Stop the TRAY on opening by force, check the slip mechanism (next gear assembly of motor)

a. Confirm that the inner gear stops and outer gear and motor's gear rotates.

b. Confirm that the scale of control meter is 225mV ~ 275mV. (8)

c. Check this slip inspection on DC 6.0V.

CLUTCH OUTER GEAR   PICK DRIVE GEAR

C

CLUTCH SPRING WIRE : D

FROM SLED MOTOR { BLUE ———— 1
ORANGE ———— 2
BLACK ———— 3
RED ———— 4

DC IV
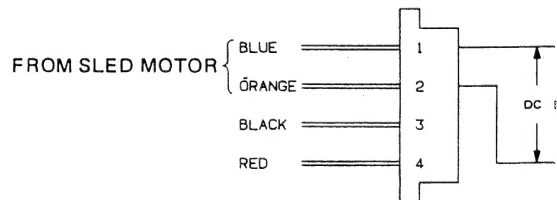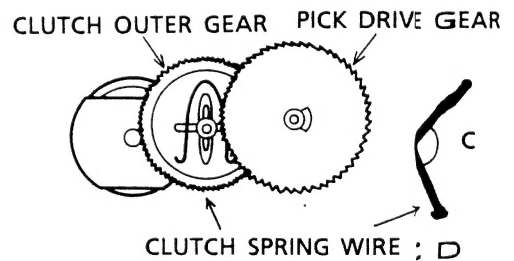
* In the case of that DC current scale
don't display 225mV ~ 275mV, adjust to below items.
read current value : A · amount of the grease (Silion G333) : B
bender angle of the spring wire D : C
A > 275mV → increase the angle C or decrease B
A < 225mV → decrease the angle C or increase B

CD ADJUSTMENT

Electrical Adjustment

So far we have presented explanations regarding compact disc player handling, notes prior to repair, handling the pick-up and disassembly of the unit. Be sure to carefully read these instructions before making any adjustments.

Test discs required for adjustments and checks

No.	Destination	Description (manufacturer)
1	414 245-2	for Demonstration (Polygram)

Preparations for Adjustments

Measuring instruments, tools and filter
   (1) Test disc. : YEDS 7, -10dB, 1KHz (Sony)
   (2) Oscilloscope : SS5711 (10MHz or dual phenomenon)
      or Memoryscope : DSS6521 (Storagescope)
   (3) Digital voltmeter (Input impedance 1 M ohm or more)

Note : Test disc are subject to change without notice.

BAND PASS FILTER

(4) Oscillator (400Hz, 300mV RMS)
(5) Frequency Counter (5MHz ; or more)
(6) Screw drivers (non-metalic) for adjustments
(7) Filter
(8) DC Power supply : 15V, 1A Class

Notes : a. The adjustments can be using the equipment produced by other manufactures provided that the performance of that equipment corresponds to that of the above listed models.
   b. Use a 10 : 1 probe for observing signals on the oscilloscope and storage scope.
   c. Test disc is subject change without notice.

1. Initial set up

Set the initial position of adjustment controls as shown in figure below.

2. Free-run Frequency adjustment(PLL-VCO)

1. Disconnect the connector (CN1001) from the pick-up.
2. Connect the frequency counter to TP12(H), TP4(GND).
3. Turn on the power of the unit.
4. Adjust T1102 so that the frequency counter shows 4.30 ±0.01 MHz.
   · if the adjustment is imperfect, get the long seek time, not read TOC, not sound. in the worst case become high speed turning, reveres turning and it may wound the disc.

3. Tracking Offset Adjustment (adjustment location : SVR1104)

1. Connect the oscilloscope to TP15 (H) , TP4 (GND) and shot TP18(T Off), TP4(GND).
2. Turn on the power of the unit.
3. Adjust SVR1104 so that the DC voltage at TP15 is 60mV ± 20mV.
   · If the adjustment is imperfect, become inferior playability can not playback the disc.
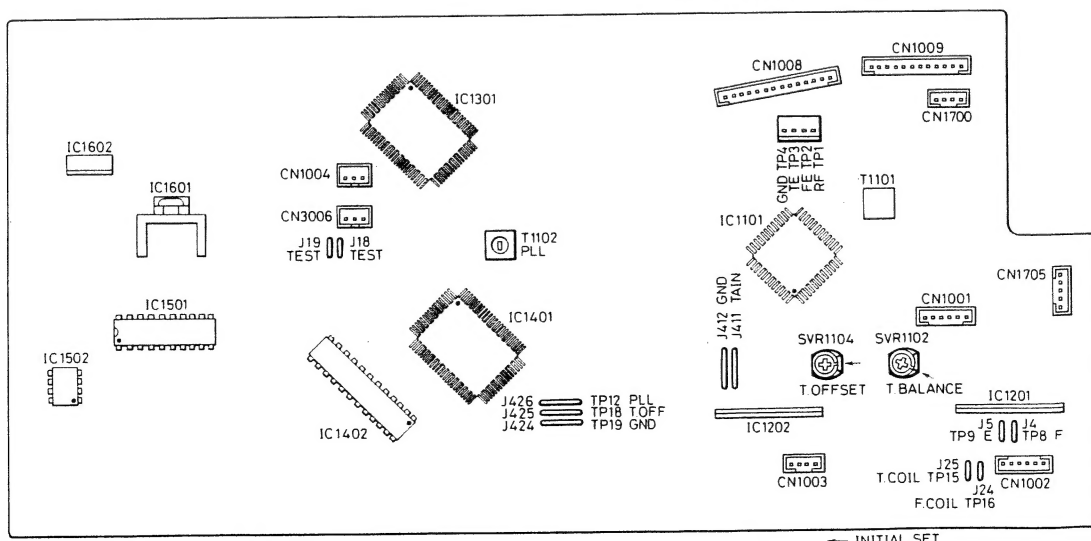
CD ADJUSTMENT

4. Tracking Balance Adjustment (SVR1102)

1. Connect the oscilloscope to TP3 (TE) and TP4 (GND.).
2. Turn on the power of the unit. Insert test disc.
3. Press the play button.
4. Continuously press the forward search ▶▶ or ▶▶ button to do it
5. Adjust SVR1102 so that the TE (Tracking Error) signal waveform of TP3 on the oscilloscope is vertically symmetrical relative to 0V. (See figure below)

*If the adjustment is imperfect, become run away the spindle motor(pick-up sending motor), inferior playability.

◀◀SEARCH
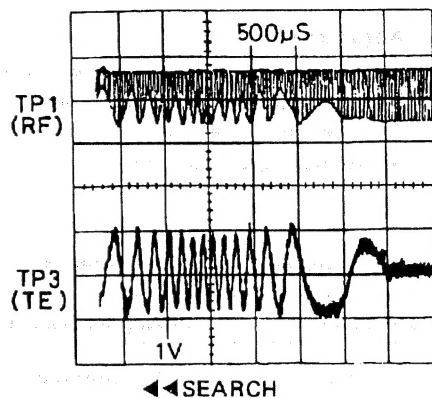
5. FOCUS Gain CONFIRMATION

1. Connect the storage scope to TP2 (F.E) by the Band pass filter. (See BPF Figure)
2. Turn on the power of the unit.
3. play the test disc.
4. Set the output of AF oscillator to 400Hz, 0.5V rms and connect to TP8 (IC1201 pin 3) by resistor 62k ohm.
5. Confirm so that the voltage of F.E signal waveform on the storage scope is 1V p-p, ±3db by through BPF.

*If this CONFIRMATION is imperfect, become weak the mechanical shock, inferior playability, and can not playback the Disc.
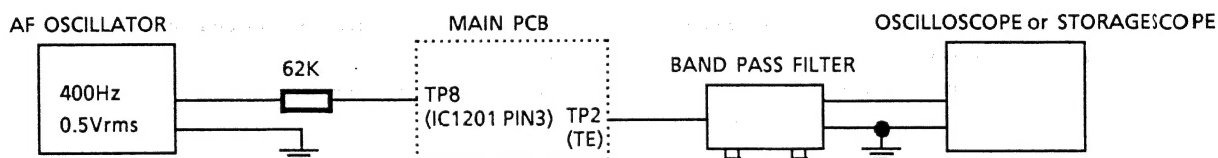
6. Tracking Gain CONFIRMATION

1. Connect the storage scope to TP3 (T.E) by the Band pass filter. (See BPF Figure).
2. Turn on the power of the unit.
3. playback the test disc.
4. Set the output of AF oscillator to 400Hz, 0.5V rms and connect to TP9 (IC1201 pin 7) by resistor 560k ohm.
5. Confirm so that the voltage of T.E signal waveform on the storagescope is 1V p-p, ±3db by through BPF.

*If this CONFIRMATION is imperfect, become weak the mechanical shock, inferior playability, and can not playback the Disc.
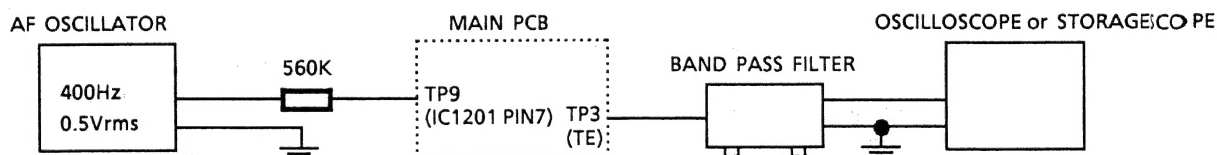
TUNER ADJUSTMENT

- Use a plastic screwdriver for adjustment.
- Adjust the intermediate frequency of AM and FM to the frequency of ceramic filter.

RF Level : 75 ohm, Open SG voltage dBμV

(1) FM BAND

Antenna : 75 ohm Direct   Modulation : 1kHz, ±75kHz dev.

STEP	ITEMS			FREQUENCY INDICATED POSITION	INPUT CONDITIONS		OUTPUT CONDITIONS		ADJUST-ING PARTS	STANDARDS
					MEASURING INSTRUCTIONS	CONNECT-IONS	MEASURING INSTRUCTIONS	CONNECT-IONS		
1	IF	V-Curve		98.0 MHz	FM Sweep Generator (10.7MHz Non Modulation Small Input)	TP2103(H) TP2102(E)	FM Sweep Generator	TP2205(H) TP2102(E)	T2201	Max.
		S-Curve						TP2204(H) TP2102(E)	T2202	Symmetrical Wave Max.
2	Tuning Cover	Low	87.5 MHz		-----	----	Digital Voltmeter	TP2401(H)	L2104	1.2~1.25V
		High	108.0 MHz					TP2102(E)	---	Confirm voltage below 8.0V
3	Tracking	Low	90.0 MHz		FM-SG(9dB)	FM ANT Terminal	VTVM Oscilloscope	Tuner Out (L/R & E)	L2101 L2102	Max.
		High	106.0 MHz						CT2101	
4	IF S-Curve (0V)			98.0 MHz	FM-SG(66dB)	FM ANT Terminal	VTVM Oscilloscope	TP2201(H) TP2202(E)	T2202	0 ± 0.05V
5	SD			98.0 MHz	(26dB)	FM ANT Terminal	Frequency Counter	TP2207(H) TP2102(E)	SVR2201	SD Output low (Auto stop sensitivity)
6	* VCO (19 kHz)			98.0 MHz	FM-SG(66dB) (Non Modulation)	FM ANT Terminal	Digital Voltmeter	TP2301(H) TP2102(E)	SVR2302	19 ± 0.05kHz
7	Separation			98.0 MHz	FM-SG(66dB) (Stereo)	FM ANT Terminal	VTVM Oscilloscope	Tuner Out (L/R & E)	SVR2301	Max. L/R ratio

Standard input Modulation for Separation : Main(L + R) : ±40kHz dev. Pilot : ±6.75kHz dev.

* :   Use IHF filter adjusted from 200~15000 Hz BPF. Set the Mode switch to STEREO position. When connect counter should be inserted 220k ohm resist in series.

Note :   TP2202 is no earth point. Be careful so that digital voltmeter earth (including case) may not be in contact with other measuring equipments earth. (including case)

(2) MW BAND

Antenna : IRE Loop, Standard output : 100dB, Modulation : 1kHz 30%

STEP	ITEMS		FREQUENCY INDICATED POSITION	INPUT CONDITIONS		OUTPUT CONDITIONS		ADJUST-ING PARTS	STANDARDS
				MEASURING INSTRUCTIONS	CONNECT-IONS	MEASURING INSTRUCTIONS	CONNECT-IONS		
1	IF(999kHz)		459 kHz	AM Sweep Generator (459kHz Non Modulation)	TP2151(H) TP2152(E)	AM Sweep Generator	TP2206(H) TP2102(E)	X2205	Max.
2	Tuning Cover	Low	522 kHz	-----	----	Digital Voltmeter	TP2401(H)	L2151	1.4 ±0.03V
		High	1611 kHz				TP2102(E)	CT2152	3.0 ±0.05V
3	Tracking	Low	603 kHz	AM-SG(78dB)	IRE Loop Ant.	VTVM Oscilloscope	Tuner Out (L/R & E)	L2152	Max.
		High	1404 kHz					CT2151	
4	SD		999 kHz	AM-SG(85dB)	IRE Loop Ant.	Digital Voltmeter	TP2207(H) TP2205(E)	SVR2202	SD Output low Auto stop sensitivity

TUNER ADJUSTMENT

(3) LW BAND

Antenna : IRE Loop, Standard modulation : 400Hz 30%

STEP	ITEMS		FREQUENCY INDICATED POSITION	INPUT CONDITIONS		OUTPUT CONDITIONS		ADJUST-ING PARTS	STANDARDS
				MEASURING INSTRUCTIONS	CONNECT-IONS	MEASURING INSTRUCTIONS	CONNECT-IONS		
2	Tuning Cover	Low	144 kHz	───	───	Digital Voltmeter	TP2401(H)	L2153	1.6±0.03V
		High	290 kHz				TP2102(E)	CT2154	7.0±0.05V
3	Tracking	Low	162 kHz	AM-SG(85dB)	IRE Loop Ant.	VTVM Oscilloscope	Tuner Out (L/R,E)	L2154	Max.
		High	279 kHz					CT2153	

PARTS LOCATIONS

<TUNER>

<DECK>

ADJUSTMENT OF DECK & TORQUE

Amplifier Adjustment

	ITEM	DECK	TEST TAPE	INPUT	DOLBY SW	OUTPUT	ADJUST POINT	REMARKS
1	Head Azimuth	DECK 1 DECK 2	VTT738	-	OFF	TAPE OUT	Azimuth Screw	Adjust so as 10kHz output become maximum.
2	Playback Level	DECK 1 DECK 2	TCC130 200nW/m	-	OFF	TAPE OUT	SVR3700 SVR3800 SVR3701 SVR3801	Adjust so as TAPE OUT output become 0.54V.
3	Rec / Play Level	DECK 2	AC224	1kHz -15dB	OFF	TAPE OUT	SVR3750 SVR3850	Adjust SVR so as Monitor o/p = R/P Level = 0dB ± 1dB.
4	Rec / Play Frequency	DECK 2	AC224	1kHz /10kHz - 30dB	ON	TAPE OUT	SVR3751 SVR3851	R/P signal, set frequency characteristic 1kHz output to 0dB.SVR so as 10kHz output become ± 1dB.

Note. 1. Perform BIAS alignment by SVR3751·3851 so as No.3 satisfy spec of all item. Perform output alignment by SVR3750·3850.

2. During alignment,measurement Beat cancel SW is at 1 condition fundamentally, cfm. R/P frequency characteristic, dolby effect also by 2 condition, when ship out set SW to 1 position.

3. Fix to MAIN VR the position that SP output playing VTT722 is about 2.83V-10dB.(2.83V ≈ 1W output)

Tape Speed Adjustment

Connect the FREQUENCY COUNTER to TAPE OUT.

1.Insert the test tape(MTT-111N, etc. : 3000Hz) into the DECK 1.   Note : Set the test tape near the tape end.

2. Press the FWD PLAY button.

3. Adjust SVR001 so that a frequency counter reading of 3000 ± 5 Hz is obtained.

4. Press the STOP button, and eject the test tape. become normal speed dubbing.

6. Insert the tape (C-60 Blank tape) into the DECK 2.

7. Press the REC button of DECK 2 and press the TAPE A / B button.

Press the FWD PLAY button. Both mechanism become normal speed dubbing.

8. Short the high speed test pin to the high speed position.

(The mechanism is high speed dubbing.)

9. Confirm that a frequency counter reading of 2700 ~ 3300Hz is obtained

TAPE SPEED SVR 001

FOR HI SPEED PIN (SHORT)
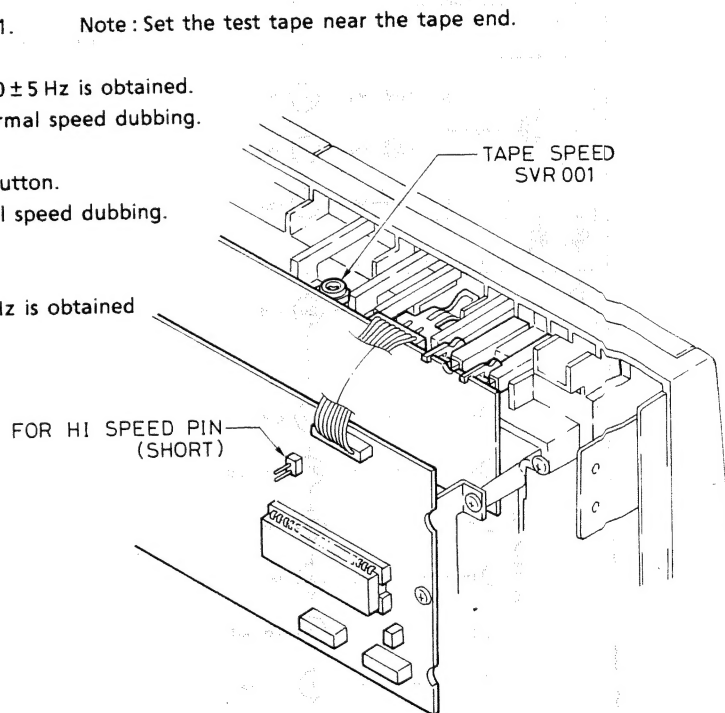
Torque Measurements

ITEM	TAKE-UP TORQUE	BACK TENSION	PULLEY TENSION
Test cassette	PLAY : TW2111(FWD) PLAY : TW2121(REV) F.FWD / REW;TW2231	PLAY : TW2111(FWD) PLAY : TW2121(REV) REW:Torque Gage	Driving power cassette: TW-2412(FWD) TW-2422(REV)
PLAY	30 ~ 60gr.cm	2.0 ~ 5.0gr.cm	> 80g
F.FWD	70 ~ 140gr.cm	-	
REW	70 ~ 140gr.cm	-	

BLOCK DIAGRAM (DECK SECTION)

IC3100
LC66306A-4468

FROM KEY(FRONT PCB)

STOP

> 30 S0
< 31 S1
>> 32 S2
<< 33 S3
REC 33 S3
REC MUTE 35 S4
TAPE A/B 37 S5
HI DUB 38 S6
CD DUB(COM CPY) 39 S7

41 DIR

REC
OFF 42 TIMER
PLAY

DISPLAY (FRONT PCB)

29 REV
28 FWD
27 REC

B A

26 A/B

TO TAPE DECK AMP

24 R/P
25 AMP A/B
35 DUB
3 AF
2 DUB OUT
4 C STOP

1 IR
FROM
FRONT PCB

34 AMSS

TEST 19
VSS 20
OSC1 21
OSC2 22
RESET 23
VDD 40

+12V

PL 13
PLUNGER
MOTOR 14
MOTOR
M
HIGH/LOW(H/L) 15
MOTOR SPEED

PLAY SW 5
STOP SW 6
REC SAFETY F 7
REC SAFETY R 8
PACK A 9
PACK B 10

A B

REEL A 11
REEL B 12

TAPE MACHANISM

P MUTE 17
R MUTE 18

TO TAPE DECK AMP

P OFF 16
(POWER OFF)

TO CD

+5V

– 9 –

DISASSEMBLY (TAPE MECHANISM)

1. Replacement of Head
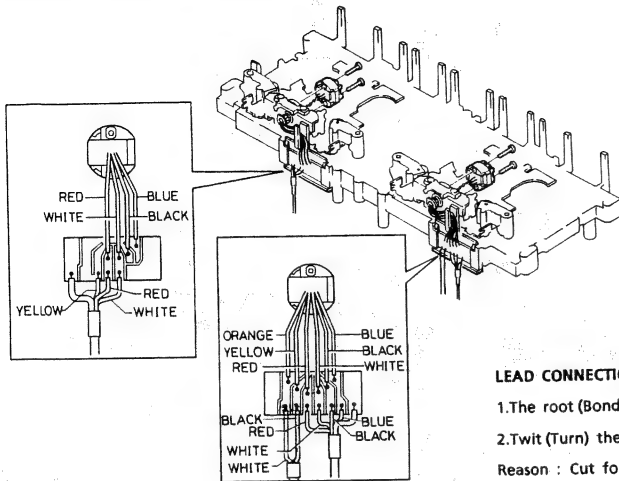
LEAD CONNECTION METHOD OF ROTARY HEAD

1.The root (Bonding parts) of leads from head fix the rubber adhesiver.

2.Twit (Turn) the fixed Leads.

Reason : Cut for rotation

2. Replacement of Motor & Belt
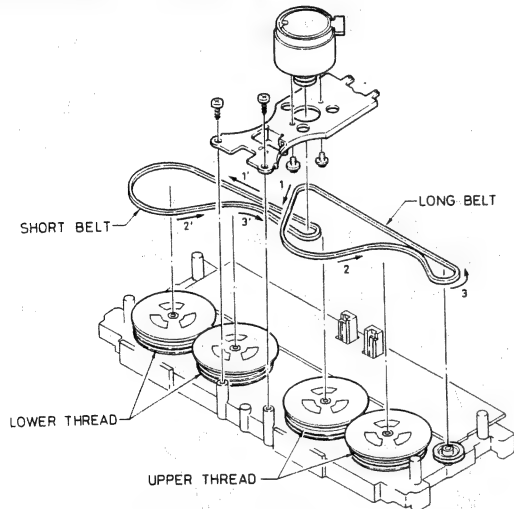
REMOTE CONTROLLER (RB-SF3)
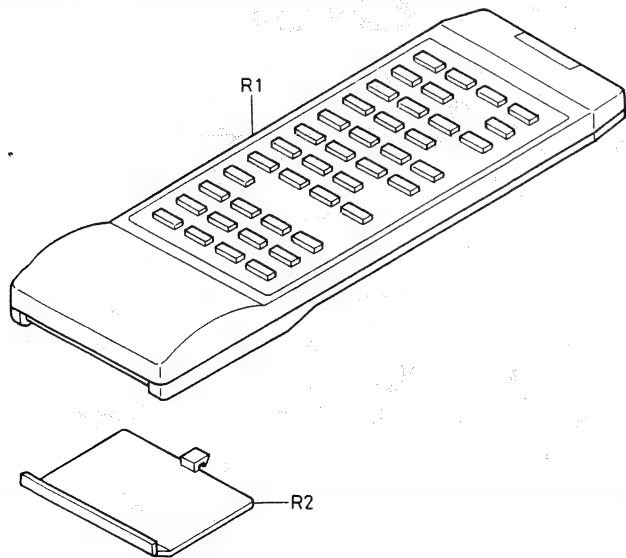
PARTS LIST
REMOTE CONTROLLER (RB-SF3)

Ref. No.	Part No.	Description
	614 226 1651	POLY COVER, REMOCON
R1	614 226 0905	ASSY, REMOCON
R2	614 226 0909	LID, BATTERY

PARTS LIST

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.

PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	614 223 2033	INNER CARTON (ITALY)
	614 223 2026	INNER CARTON (W.GERMANY)
	614 221 8396	PAD, TOP
	614 221 8402	PAD, BOTTOM
	614 226 2306	POLY COVER, SET
	614 222 1365	SHEET, SET
	614 176 3231	INNER POLYE COVER, INST-M.
	614 176 1039	INNER POLYE COVER, SCREW
	614 223 2071	INSTRUCTION MANUAL (ITALY)
	614 223 2064	INSTRUCTION MANUAL (W.GERMANY)
	614 191 3681	LABEL, LASER CLASS, CABINET
	614 023 7344	ANT, FM
	614 208 7565	LOOP ANT, AM
	614 212 2341	MOUNT-E, AM ANT BRACKET
	411 083 9307	SCR WOOD RND 3.1X13, FOR AM ANT MTG.
	149 521 00	REMOCON RB-SF3

CABINET

Ref. No.	Part No.	Description
1	614 221 8037	ASSY, PANEL, FRONT
2	614 223 1623	PANEL, REAR (ITALY)
	614 223 1616	PANEL, REAR (W.GERMANY)
3	614 221 8587	ASSY, CABINET
4	614 223 2200	CABINET, BOTTOM
5	614 221 8020	ASSY, LID, CASSETTE, DECK 1
6	614 221 8013	ASSY, LID, CASSETTE, DECK 2
7	614 221 8662	DOOR, CD
8	614 221 1410	TABLE, LOADING, CD TRAY
9	614 221 8655	COVER, PHONO·VIDEO TERMINAL & EARTH
10	614 224 1264	HANDLE, CABINET SIDE
11	614 221 3193	KNOB, ROTARY, VOLUME
12	614 224 6078	KNOB, ROTARY, MID·HIGH·BALANCE·BASS
13	614 221 8709	BUTTON, SPEAKER·DOLBY
14	614 221 8730	BUTTON, POWER
15	614 221 8600	ASSY, BUTTON, DECK
16	614 221 8754	BUTTON, COMP. BUB·REC MUTE·+ TUNING
17	614 221 8693	KNOB, SLIDE, DIRECTION MODE
18	614 221 8747	BUTTON, TAPE A/B·BAND·FM MODE/TUNING
19	614 221 8761	BUTTON, PRE-SET (P1~P6)
20	614 221 8792	BUTTON, CD
21	614 221 8778	BUTTON, MEMO.·COMP. REC·EDIT·STOP
22	614 221 8723	BUTTON, FUNCTION (CD·TAPE·TUNER·PHONO·VIDEO)
23	614 106 3393	STAND, BOTTOM
24	412 003 2804	SPECIAL SCREW, PHONO EARTH

CHASSIS

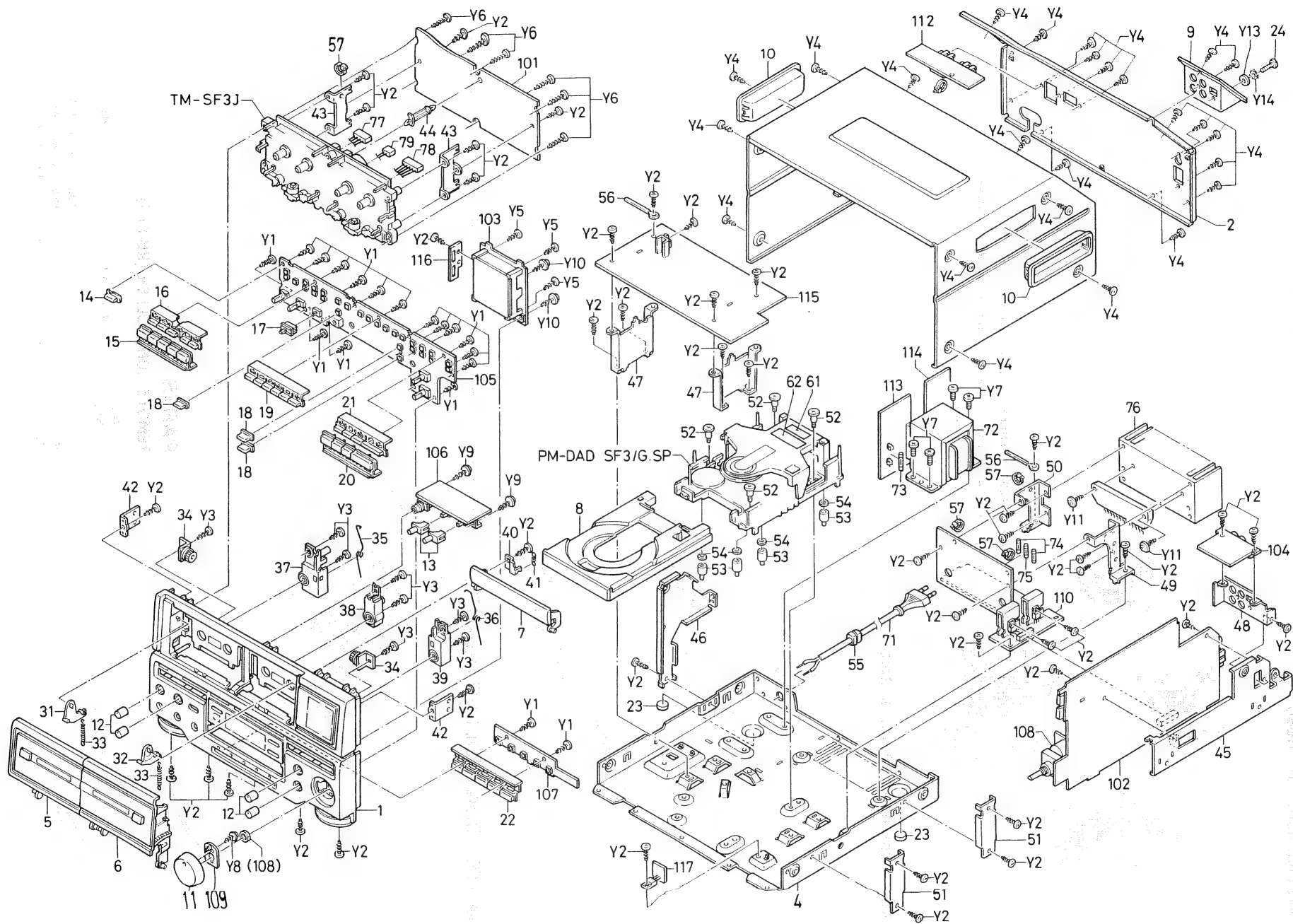| Ref. No.	Part No.	Description
31	614 221 8983	LEVER, DECK EJECT, DECK 1
32	614 221 8990	LEVER, DECK EJECT, DECK 2
33	614 208 9606	SPRING, TENS, DECK EJECT
34	614 069 0385	GEAR ASSY, CASSETTE DUMPER
35	614 221 9027	SPRING, WIRE, DECK 1
36	614 221 9034	SPRING, WIRE, DECK 2
37	614 221 8907	MOUNT-M, CASSETTE LID, LEFT
38	614 221 8914	MOUNT-M, CASSETTE LID, CENTER
39	614 221 8921	MOUNT-M, CASSETTE LID, RIGHT
40	614 221 8877	BRACKET-M, CD DOOR
41	614 221 9003	SPRING, TENS, CD DOOR
42	614 221 8884	BRACKET-M, CABINET-FRONT PANEL
43	614 221 8839	BRACKET-E, DECK PCB
44	614 129 5558	FIXER, DECK PCB
45	614 221 8945	REINFORCEMENT, RIGHT
46	614 221 8952	REINFORCEMENT, LEFT
47	614 211 6999	BRACKET-E, CD PCB
48	614 221 8846	BRACKET-E, TERMINAL
49	614 221 8853	BRACKET-E, HEAT SINK, RIGHT
50	614 221 8860	BRACKET-E, HEAT SINK, LEFT
51	614 211 7002	BRACKET-M, REINFORCEMENT-BOTTOM
52	412 004 5705	SPECIAL SCREW, CD MECHANISM
53	614 195 6978	RUBBER CUSHION, CD MECHANISM
54	411 087 8108	WASHER V 3X8X0.5, CD MECHANISM
55	614 129 1901	FIXER, AC CORD
56	614 130 0382	LUG, LEAD RETAINER
57	614 129 2496	FIXER, LEAD RETAINER
or	614 129 4971	FIXER, LEAD RETAINER
61	614 191 3698	LABEL, LASER
62	614 224 3695	LABEL, SAFETY, LASER NOTICE
	614 125 2544	CUSHION, CD DOOR

FIXING PARTS

Ref. No.	Part No.	Description
Y1	411 021 3107	SCR S-TPG BIN 2.6X8
Y2	411 021 6405	SCR S-TPG BIN 3X8
Y3	411 021 3503	SCR S-TPG BIN 3X10
Y4	411 021 3701	SCR S-TPG BIN 3X10
Y5	411 021 4005	SCR S-TPG BIN 3X12
Y6	411 021 4906	SCR S-TPG BIN 3X20
Y7	411 001 4209	SCR S-TPG BIN 4X8
Y8	411 024 3807	SCR S-TPG PAN + FLG 2X8
Y9	411 020 9902	SCR S-TPG BRZ + FLG 3X8
Y10	411 020 8905	SCR S-TPG BRZ + FLG 3X10
Y11	411 020 9506	SCR S-TPG BRZ + FLG 3X16
Y12	411 105 9704	WASHER Z 3X10X1
Y13	411 008 0402	WASHER OUT TW 3

PARTS LIST

ELECTRICAL PARTS

Ref. No.	Part No.	Description
71	⚠ 614 023 3308	POWER CORD
72	⚠ 614 221 7436	POWER TRANS
73	⚠ 423 016 9902	FUSE 250V 0.8A, F4901
74	⚠ 423 017 0106	FUSE 250V 1.6A, F4701·4801
75	⚠ 423 016 7908	FUSE 250V 2.5A, F4601
76	614 222 1013	HEAT SINK, FOR IC4913
77	614 224 7839	ASSY, CONNECTOR-S, 4P W/LEAD, DECK 1
78	614 224 7846	ASSY, CONNECTOR-S, 5P W/LEAD, DECK 2
79	614 224 7853	ASSY, CONNECTOR-S, 2P W/LEAD, DECK 2

DECK AMPLIFIER P.C.BOARD ASSY

Ref. No.	Part No.	Description
101	⚠ 614 221 6927	ASSY, PCB, DECK (ITALY)
	⚠ 614 225 6220	ASSY, PCB, DECK (W.GERMANY)
	614 211 3592	HEAT SINK, FOR IC3751
L3300	614 221 8280	TRANS, OSC, BIAS
L3700	614 028 4379	FILTER, 1000UH
L3730	614 029 3807	MX COIL, 85KHZ
L3750	614 029 3142	MX COIL, 85KHZ
L3800	614 028 4379	FILTER, 1000UH
L3830	614 029 3807	MX COIL, 85KHZ
L3850	614 029 3142	MX COIL, 85KHZ
X3100	614 215 5523	RESONATOR, 4.19MHZ
or	614 215 5561	RESONATOR, 4.19MHZ
SVR3700	614 003 6190	SEMI-FIXED V.R, 20K OHM (B)
SVR3701	614 003 6190	SEMI-FIXED V.R, 20K OHM (B)
SVR3750	614 003 6183	SEMI-FIXED V.R, 10K OHM (B)
SVR3751	614 003 6213	SEMI-FIXED V.R, 50K OHM (B)
SVR3800	614 003 6190	SEMI-FIXED V.R, 20K OHM (B)
SVR3801	614 003 6190	SEMI-FIXED V.R, 20K OHM (B)
SVR3850	614 003 6183	SEMI-FIXED V.R, 10K OHM (B)
SVR3851	614 003 6213	SEMI-FIXED V.R, 50K OHM (B)
CN3001	614 224 9994	ASSY, CONNECTOR-S, 8P W/LEAD, TO DECK 1
CN3002	614 224 9994	ASSY, CONNECTOR-S, 8P W/LEAD, TO DECK 2
CN3003	614 035 6038	SOCKET, 12P, TO TUNER & PRE-AMP.
CN3004	614 035 6007	SOCKET, 9P, TO FRONT
CN3005	614 035 6007	SOCKET, 9P, TO FRONT
CN3006	614 225 0143	ASSY, CONNECTOR-S, 3P W/LEAD, TO CD
CN3007	614 016 4084	PLUG, 2P, HIGH SPEED
CN3301	614 017 2539	PLUG, 2P, E-HEAD
CN3701	614 017 2553	PLUG, 4P, P-HEAD
CN3702	614 017 2560	PLUG, 5P, R/P-HEAD
CN3703	614 035 5949	SOCKET, 3P, TAPE OUT
RA3110	614 225 0679	RESISTOR, 4.7K OHM X6
or	614 225 0693	RESISTOR, 4.7K OHM X6
RA3111	614 225 0686	RESISTOR, 4.7K OHM X7
or	614 225 0709	RESISTOR, 4.7K OHM X7
IC3100	410 100 6800	IC LC66306A-4486
IC3700	409 121 8702	IC LA3246
IC3701	409 207 1900	IC MLC4066B
or	409 003 9506	IC BU4066B
or	409 051 3501	IC TC4066BP
or	409 059 2605	IC UPD4066BC
IC3730	409 119 9803	IC CXA1101P
IC3750	409 214 1900	IC CXA1298AP
IC3751	409 145 8405	IC UPC1330HA
Q3100	405 078 3005	TR BA1L4M
or	405 001 0408	TR RN1204
or	405 103 9606	TR AA1L4M
Q3140	405 078 2107	TR BN1L4M
or	405 103 9705	TR AN1L4M
or	405 001 1306	TR RN2204
Q3141	405 012 2002	TR 2SC1815-GR

Ref. No.	Part No.	Description
Q3141	405 020 7204	TR 2SC945A-K
Q3142	405 078 3005	TR BA1L4M
or	405 001 0408	TR RN1204
or	405 103 9606	TR AA1L4M
Q3160	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q3161	405 078 2107	TR BN1L4M
or	405 103 9705	TR AN1L4M
or	405 001 1306	TR RN2204
Q3191	405 078 2701	TR BN1L3Z
or	405 103 9507	TR AN1L3Z
or	405 084 0104	TR RN2210
Q3192	405 078 3005	TR BA1L4M
or	405 001 0408	TR RN1204
or	405 103 9606	TR AA1L4M
Q3193	⚠ 405 015 1606	TR 2SC2655-Y
Q3194	405 078 2107	TR BN1L4M
or	405 103 9705	TR AN1L4M
or	405 001 1306	TR RN2204
Q3300	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q3301	405 011 1907	TR 2SC1627-Y
Q3302	405 001 7001	TR 2SA1015-GR
or	405 005 2002	TR 2SA733-P
Q3303	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q3730	405 022 5604	TR 2SD1468-S
or	405 033 6805	TR 2SD1468S-S
Q3830	405 022 5604	TR 2SD1468-S
or	405 033 6805	TR 2SD1468S-S
D3100	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3110	407 005 4505	DIODE DS442X
or	407 013 7109	DIODE 1S2473
D3111	407 005 4505	DIODE DS442X
or	407 013 7109	DIODE 1S2473
D3112	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3113	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3114	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3140	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3141	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3142	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3143	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3190	407 051 6904	ZENER DIODE GZS5.6Y
or	407 053 6803	ZENER DIODE MTZ5.6C
D3750	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
C3303	403 058 2406	POLYESTER 0.015U J 50V
C3304	403 058 1102	POLYESTER 1500P K 50V
R3194	⚠ 402 004 4303	FUSIBLE RES 10 J- 1/4W

TUNER & PRE-AMPLIFIER P.C.BOARD ASSY

Ref. No.	Part No.	Description
102	⚠ 614 223 1364	ASSY, PCB, TUNER & PRE-AMP
	614 211 3004	SOCKET, 3P, TO POWER 2 (CN4905)
	614 224 4517	VR, ROTARY, 100K OHM (B), VR4701·4801
	614 116 5349	SHIELD PLATE, DIPPING
	614 117 1029	SHIELD PLATE, PATTERN SIDE
	614 117 1036	SHIELD PLATE, SYMBOL SIDE
	614 051 9785	LUG, EARTH
	614 210 4675	FILTER, PAIR (X2204·2205)
JK2101	614 210 2688	TERMINAL, EXT ANT

Ref. No.	Part No.	Description
CT2101	614 007 3683	TRIMMER, 8PF (BK)
CT2151	614 007 6356	TRIMMER, 11PF (WH)
CT2152	614 007 6356	TRIMMER, 11PF (WH)
CT2153	614 007 6332	TRIMMER, 30PF (GR)
CT2154	614 007 6332	TRIMMER, 30PF (GR)
T2101	614 028 6922	FILTER, BPF, 88~108MHZ, FM
T2201	614 030 3476	I.F.T, 10.7MHZ, FM
T2202	614 030 4114	I.F.T, 10.7MHZ, FM
T2204	614 029 3906	MX COIL, LPF
T2301	614 027 7845	CHOKE, TRAP
T2302	614 027 7845	CHOKE, TRAP
L2101	614 034 9870	VHF COIL, FM
L2102	614 034 9887	VHF COIL, FM
L2103	614 028 4058	FILTER, 2.2UH, FM
L2104	614 035 0036	VHF COIL, FM
L2105	614 034 8286	VHF COIL, FM
L2131	614 034 7135	VHF COIL, AM
L2132	614 034 7135	VHF COIL, AM
L2151	614 033 8904	O.S.C COIL, MW
L2152	614 032 8066	ANT COIL, MW
L2153	614 034 1003	O.S.C COIL, LW
L2154	614 197 3975	ANT COIL, LW
L2155	614 028 4379	FILTER, 1000UH, AM
X2201	614 030 5128	I.F FILTER, FM
X2202	614 030 5128	I.F FILTER, FM
X2203	614 030 5128	I.F FILTER, FM
X2204	614 030 7443	I.F FILTER, AM
X2205	614 211 2939	FILTER, AM
SVR2201	614 204 1918	SEMI-FIXED V.R, 20K OHM (B)
SVR2202	614 204 1901	SEMI-FIXED V.R, 10K OHM (B)
SVR2301	614 204 1864	SEMI-FIXED V.R, 1K OHM (B)
SVR2302	614 204 1901	SEMI-FIXED V.R, 10K OHM (B)
CN2403	614 208 2355	SOCKET, 8P, TO FRONT
CN2405	614 208 2355	SOCKET, 8P, TO FRONT
CN4901	614 035 5017	SOCKET, 12P, TO DECK
CN4902	614 017 2539	PLUG, 2P, TO VR LED
CN4903	614 017 2591	PLUG, 8P, TO FUNCTION SW.
CN4904	614 017 2669	PLUG, 15P, TO FRONT
CN4905	614 020 1222	SOCKET, 3P, TO POWER 2
CN4906	614 035 4911	SOCKET, 2P, TO VR MOTOR
CN4907	614 224 9215	SOCKET, 13P, TO POWER 1
CN4908	614 035 4973	SOCKET, 8P, TO RCA SOCKET
CN4909	614 225 0181	ASSY, CONNECTOR-S, 5P W/LEAD, TO CD
IC2201	409 016 2204	IC LA1265S
IC2301	409 016 9500	IC LA3361
IC2402	409 154 0209	IC TC9172AP
IC4902	409 053 1703	IC TC9174P
IC4903	409 022 3608	IC LC7818
IC4904	409 160 6608	IC TA7764P
IC4905	409 018 4305	IC LA6458D
IC4906	409 018 4305	IC LA6458D
IC4907	409 114 4803	IC LB1641
Q2101	405 092 5702	TR 2SK606-Q
or	405 093 7606	TR 2SK606-R
Q2102	405 012 5904	TR 2SC1923-Y
Q2103	405 012 5904	TR 2SC1923-Y
Q2104	405 012 5904	TR 2SC1923-Y
Q2105	405 092 5702	TR 2SK606-Q
or	405 093 7606	TR 2SK606-R
Q2151	405 016 2206	TR 2SC2878-A
or	405 016 2305	TR 2SC2878-B
Q2152	405 016 2206	TR 2SC2878-A
or	405 016 2305	TR 2SC2878-B
Q2153	405 016 2206	TR 2SC2878-A
or	405 016 2305	TR 2SC2878-B
Q2154	405 016 2206	TR 2SC2878-A
or	405 016 2305	TR 2SC2878-B
Q2155	405 016 2206	TR 2SC2878-A
or	405 016 2305	TR 2SC2878-B
Q2156	405 078 5405	TR 2SK301-R
Q2157	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR

Ref. No.	Part No.	Description
Q2157	405 020 7204	TR 2SC945A-K
Q2158	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2201	405 018 7902	TR 2SC380TM-O
Q2202	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2301	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2302	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2303	405 016 2206	TR 2SC2878-A
or	405 016 2305	TR 2SC2878-B
Q2304	405 016 2206	TR 2SC2878-A
or	405 016 2305	TR 2SC2878-B
Q2351	405 001 7001	TR 2SA1015-GR
Q2352	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2354	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2355	405 001 7001	TR 2SA1015-GR
Q2356	405 001 7001	TR 2SA1015-GR
Q2357	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2358	405 001 7001	TR 2SA1015-GR
Q2359	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2360	405 001 7001	TR 2SA1015-GR
Q2401	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2402	405 078 4903	TR 2SC2634-R
Q2403	405 078 4903	TR 2SC2634-R
Q2404	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q2405	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4701	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4702	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4703	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4801	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4802	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4803	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4901	405 001 7001	TR 2SA1015-GR
or	405 005 2002	TR 2SA733-P
Q4902	405 001 7001	TR 2SA1015-GR
or	405 005 2002	TR 2SA733-P
Q4903	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4904	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K

Ref. No.	Part No.	Description
Q4905 or Q4906 or or or	405 001 7001	TR 2SA1015-GR
	405 005 2002	TR 2SA733-P
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 020 7204	TR 2SC945A-K
D2101	407 105 0100	VARACTOR DI SVC211-B-AL
D2102	407 105 0100	VARACTOR DI SVC211-B-AL
D2103	407 105 0100	VARACTOR DI SVC211-B-AL
D2104 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2151	407 091 5004	VARACTOR DI SVC321SPA-C-2
D2152	407 091 5004	VARACTOR DI SVC321SPA-C-2
D2201 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2301 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2302 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2401 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2403 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2404 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2405 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D4901	407 007 9904	DIODE GMA01
D4902	407 053 7107	ZENER DIODE MTZ6.2B
D4903	407 007 9904	DIODE GMA01
D4904	407 053 5806	ZENER DIODE MTZ4.7B
D4906	407 005 4505	DIODE DS442X
D4907	407 005 4505	DIODE DS442X
D4908	407 007 9904	DIODE GMA01
D4909	407 007 9904	DIODE GMA01
C2306	403 080 5000	POLYPRO 1000P J 100V
C2407	403 106 1603	NP-ELECT 1U Q 50V
C4709	403 061 9003	POLYESTER 4700P M 50V
C4710	403 057 1202	POLYESTER 0.01U M 50V
C4711	403 060 8908	POLYESTER 0.033U M 50V
C4713	403 062 6902	POLYESTER 0.056U K 50V
C4809	403 061 9003	POLYESTER 4700P M 50V
C4810	403 057 1202	POLYESTER 0.01U M 50V
C4811	403 060 8908	POLYESTER 0.033U M 50V
C4813	403 062 6902	POLYESTER 0.056U K 50V
C4928	403 085 6804	NP-ELECT 47U M 16V
C4995	403 085 6804	NP-ELECT 47U M 16V
R2380	⚠ 401 018 1209	CARBON 33 JB 1/4W, FLAME PLOOF
R4926	⚠ 402 004 4303	FUSIBLE RES 10 J- 1/4W

LCD P.C.BOARD ASSY

Ref. No.	Part No.	Description
103	⚠ 614 223 1371	ASSY, PCB, LCD
	614 221 9515	LCD=LIQUID CRYSTAL DISPLAY
	614 221 8891	MOUNT-E, LCD
	614 221 8808	REFLECTION, LCD
	614 221 8969	SHEET, MIRROR FILM, LCD
	614 221 8976	SHEET, MAT, LCD
	614 226 5369	CUSHION, LCD
X2401 or	614 008 0063	CRYSTAL, 7.2MHZ
	614 204 0317	CRYSTAL, 7.2MHZ
CN2401	614 020 6548	SOCKET, 2P, TO LAMP
CN2407	614 221 9096	SOCKET, 9P, TO FRONT
CN2410	614 225 0266	ASSY, CONNECTOR-S, 12P W/LEAD, TO CD
CN2411	614 225 0297	ASSY, CONNECTOR-S, 14P W/LEAD, TO CD
P2404	614 208 2263	PLUG, 8P, TUNER & PRE-AMP.
P2406	614 208 2263	PLUG, 8P, TUNER & PRE-AMP.
IC2401	410 064 8407	IC TC9306F-045 BS

Ref. No.	Part No.	Description
Q2406	405 001 7001	TR 2SA1015-GR
D2402 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2408 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2409 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2410 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2411 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2412 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2413 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2414 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2415 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
D2416 or	407 012 5809	DIODE 1SS176
	407 012 4406	DIODE 1SS133
C2401	403 019 0403	CERAMIC 24P J 50V, NPO
C2402	403 019 0403	CERAMIC 24P J 50V, NPO
C2410	403 196 9602	DL-ELECT 0.047F Z 5.5V

PHONO·VIDEO TERMINAL P.C.BOARD ASSY

Ref. No.	Part No.	Description
104	⚠ 614 223 1388	ASSY, PCB, TERMINAL (RCA)
	614 221 3360	SOCKET, 4P (RCA), PHONO·VIDEO
SW3900 or	614 012 4316	SWITCH, BEAT CANCEL
	614 023 8297	SWITCH, BEAT CANCEL
CN4910	614 035 4973	SOCKET, 8P, TO TUNER & PRE-AMP.
IC4901	409 018 4909	IC LA6458S

FRONT P.C.BOARD ASSY

Ref. No.	Part No.	Description
105	⚠ 614 221 6965	ASSY, PCB, FRONT
	614 224 4456	SOCKET, 3P W/LEAD, TO POWER 2 (CN4930)
S1701	614 220 5631	SWITCH, TACT, CD, SKIP·SEARCH (REVERSE)
S1702	614 220 5631	SWITCH, TACT, CD, PLAY·PAUSE
S1703	614 220 5631	SWITCH, TACT, CD, COMP REC
S1704	614 220 5631	SWITCH, TACT, CD, OPEN/CLOSE
S1705	614 220 5631	SWITCH, TACT, CD, EJECT
S1706	614 220 5631	SWITCH, TACT, CD, MEMO
S1707	614 220 5631	SWITCH, TACT, CD, STOP
S1708	614 220 5631	SWITCH, TACT, CD, SKIP·SEARCH (FORWARD)
S2001	614 220 5631	SWITCH, TACT, PRESET, P1
S2002	614 220 5631	SWITCH, TACT, PRESET, P2
S2003	614 220 5631	SWITCH, TACT, PRESET, P3
S2004	614 220 5631	SWITCH, TACT, PRESET, P4
S2005	614 220 5631	SWITCH, TACT, PRESET, P5
S2006	614 220 5631	SWITCH, TACT, PRESET, P6
S2007	614 220 5631	SWITCH, TACT, TUNING +
S2008	614 220 5631	SWITCH, TACT, TUNING -
S2009	614 220 5631	SWITCH, TACT, BAND
S2010	614 220 5631	SWITCH, TACT, TUNING/FM MODE
S2900	614 220 5631	SWITCH, TACT, POWER
S3170	614 220 5631	SWITCH, TACT, DECK, FORWARD PLAY
S3171	614 220 5631	SWITCH, TACT, DECK, REVERSE PLAY
S3172	614 220 5631	SWITCH, TACT, DECK, STOP
S3173	614 220 5631	SWITCH, TACT, DECK, F.FWD & REW (FORWARD)

Ref. No.	Part No.	Description
S3174	614 220 5631	SWITCH, TACT, DECK, F.FWD & REW (REVERSE)
S3175	614 220 5631	SWITCH, TACT, DECK, REC
S3176	614 220 5631	SWITCH, TACT, DECK, REC MUTE
S3177	614 220 5631	SWITCH, TACT, TAPE A/B
S3178	614 220 5631	SWITCH, TACT, DECK, COMP DUB
S3179	614 024 2416	SWITCH, DECK, DIRECTION MODE
VR4601	614 208 7794	VR, ROTARY, 50K (B), BASS
VR4901	614 221 3476	VR, ROTARY, 50K (B), HIGH
VR4902	614 221 3476	VR, ROTARY, 50K (B), MID
VR4903	614 221 3476	VR, ROTARY, 50K (B), BALANCE
CN1700	614 225 0167	ASSY, CONNECTOR-S, 4P W/LEAD, TO CD
CN2417	614 035 4980	SOCKET, 9P, TO LCD
CN2900	614 224 7280	OPTO CONNECTOR, REMOCON RECEIVER (INFRARED LAYS)
CN3054	614 035 4980	SOCKET, 9P, TO DECK
CN3055	614 035 4980	SOCKET, 9P, TO DECK
CN4930	614 020 1222	SOCKET, 3P, TO POWER 2
CN4931	614 226 2672	ASSY, CONNECTOR-S, 15P W/LEAD, TO TUNER & PRE-AMP.
CN4932	614 035 4935	SOCKET, 4P, TO PHONES (SP-SW.)
IC4601	409 020 0708	IC LB1403
IC4701	409 020 2504	IC LB1423
IC4801	409 020 2504	IC LB1423
Q3170 or	405 012 2002 405 020 7204	TR 2SC1815-GR TR 2SC945A-K
Q3171 or	405 012 2002 405 020 7204	TR 2SC1815-GR TR 2SC945A-K
D3170 or	407 007 9904 407 012 4406	DIODE GMA01 DIODE 1SS133
D3171 or	407 007 9904 407 012 4406	DIODE GMA01 DIODE 1SS133
D3172 or	407 007 9904 407 012 4406	DIODE GMA01 DIODE 1SS133
D3173 or	407 007 9904 407 012 4406	DIODE GMA01 DIODE 1SS133
D3174 or	407 007 9904 407 012 4406	DIODE GMA01 DIODE 1SS133
D3175 or	407 007 9904 407 012 4406	DIODE GMA01 DIODE 1SS133
D3180 or	408 013 3504 408 013 3603	LED SLZ-381C-22-A-T2 LED SLZ-381C-22-B-T2
D3181 or	408 013 3504 408 013 3603	LED SLZ-381C-22-A-T2 LED SLZ-381C-22-B-T2
D3182 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1 LED SLZ-181C-09-B-T1
D3183 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D3184 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4631 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1 LED SLZ-181C-09-B-T1
D4632 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1 LED SLZ-181C-09-B-T1
D4633 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1 LED SLZ-181C-09-B-T1
D4634 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1 LED SLZ-181C-09-B-T1
D4635 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1 LED SLZ-181C-09-B-T1
D4731 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4732 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4733 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4734 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4735 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4831 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1

Ref. No.	Part No.	Description
D4832 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4833 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4834 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4835 or	408 013 3207 408 013 3306	LED SLZ-381C-09-A-T1 LED SLZ-381C-09-B-T1
D4931 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1 LED SLZ-181C-09-B-T1

PHONES SOCKET & SWITCH P.C.BOARD ASSY

Ref. No.	Part No.	Description
106	⚠ 614 223 1395 614 212 6899 614 222 0832	ASSY, PCB, PHONES SOCKET, PHONES SWITCH, PUSH, SPEAKER·DOLBY
CN4981	614 035 5949	SOCKET, 3P, TO POWER 2
CN4990	614 198 2946	SOCKET, 4P, TO FRONT
R4761	401 009 5506	CARBON 330 JB 1/2W
R4861	401 009 5506	CARBON 330 JB 1/2W

FUNCTION SWITCH & LED P.C.BOARD ASSY

Ref. No.	Part No.	Description
107	⚠ 614 221 6989	ASSY, PCB, FUNCTION SW.
S4901	614 220 5631	SWITCH, TACT, VIDEO
S4902	614 220 5631	SWITCH, TACT, PHONO
S4903	614 220 5631	SWITCH, TACT, TUNER
S4904	614 220 5631	SWITCH, TACT, TAPE
S4905	614 220 5631	SWITCH, TACT, CD
CN4933	614 225 0006	ASSY, CONNECTOR-S, 8P W/LEAD, TO TUNER & PRE-AMP.
D4911 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1, VIDEO LED SLZ-181C-09-B-T1, VIDEO
D4912 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1, PHONO LED SLZ-181C-09-B-T1, PHONO
D4913 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1, TUNER LED SLZ-181C-09-B-T1, TUNER
D4914 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1, TAPE LED SLZ-181C-09-B-T1, TAPE
D4915 or	408 013 2903 408 013 3009	LED SLZ-181C-09-A-T1, CD LED SLZ-181C-09-B-T1, CD

VOLUME MOTOR P.C.BOARD ASSY

Ref. No.	Part No.	Description
108	⚠ 614 223 1401	ASSY, PCB, VR MOTOR
L4901	614 027 9214	CHOKE COIL
CN4911	614 035 4911	SOCKET, 2P, TO TUNER & PRE-AMP.
C4923	403 106 0903	NP-ELECT 3.3U M 25V
C4924	403 057 3800	POLYESTER 0.1U M 50V

VOLUME LED P.C.BOARD ASSY

Ref. No.	Part No.	Description
109	⚠ 614 223 1418	ASSY, PCB, VR LED
CN4902	614 225 0129	ASSY, CONNECTOR-S, 2P W/LEAD, TO TUNER & PRE-AMP.
D4905 or	407 134 8009 407 134 8108	LED SLC-22VR5F-G, VR LED SLC-22VR5F-H, VR

PARTS LIST

POWER AMPLIFIER 1 P.C.BOARD ASSY

Ref. No.	Part No.	Description
110	⚠ 614 223 1425	ASSY, PCB, POWER 1
	614 203 7362	HEAT SINK, FOR IC4917·Q4918
CN4970	614 020 1222	SOCKET, 3P, TO P.T SEC.
CN4972	614 020 1239	SOCKET, 4P, TO P.T SEC.
CN4973	614 020 6555	SOCKET, 3P, TO REG. IC
CN4974	614 224 9208	PLUG, 13P, TO TUNER & PRE-AMP.
IC4913	⚠ 409 195 9803	IC STK4137MK2
IC4914	⚠ 409 027 1005	IC L780S12
Q4915	405 015 1606	TR 2SC2655-Y
Q4916	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4918	405 035 7206	TR 2SD1913-S
Q4919	405 001 9302	TR 2SA1020-Y
Q4920	405 001 7001	TR 2SA1015-GR
or	405 005 2002	TR 2SA733-P
Q4921	405 001 7001	TR 2SA1015-GR
or	405 005 2002	TR 2SA733-P
Q4922	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4923	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4981	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
D4921	⚠ 407 077 7800	DIODE RBV-402LF-A
D4922	407 053 3208	ZENER DIODE MTZ12B
D4923	407 053 3208	ZENER DIODE MTZ12B
D4932	407 007 9904	DIODE GMA01
C4961	403 057 3800	POLYESTER 0.1U M 50V
C4962	403 057 3800	POLYESTER 0.1U M 50V
C4982	403 060 8908	POLYESTER 0.033U M 50V
R4951	⚠ 401 006 9002	CARBON 10 JB 1/2W
R4952	⚠ 402 059 0800	FUSIBLE RES 150 J- 1/4W

POWER AMPLIFIER 2 P.C.BOARD ASSY

Ref. No.	Part No.	Description
111	⚠ 614 223 1432	ASSY, PCB, POWER 2
	614 208 4540	FUSE HOLDER, FOR F4601·4701·4801
or	614 123 0023	BRACKET FUSE, FOR F4601·4701·4801
CN4975	614 020 1253	SOCKET, 6P, TO SP TERMINAL
CN4976	614 020 6555	SOCKET, 3P, TO PHONES
CN4977	614 017 2256	PLUG, 3P, TO TUNER & PRE-AMP.
CN4978	614 017 2256	PLUG, 3P, TO FRONT
IC4911	409 018 4909	IC LA6458S
IC4912	409 018 4909	IC LA6458S
Q4601	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4602	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q4911	405 001 7001	TR 2SA1015-GR
or	405 005 2002	TR 2SA733-P
Q4912	405 001 7001	TR 2SA1015-GR
or	405 005 2002	TR 2SA733-P
D4601	407 007 9904	DIODE GMA01
D4602	407 007 9904	DIODE GMA01
C4611	403 057 3800	POLYESTER 0.1U M 50V
C4612	403 057 3800	POLYESTER 0.1U M 50V
C4613	403 057 3800	POLYESTER 0.1U M 50V
C4614	403 063 0800	POLYESTER 6800P M 50V
C4615	403 062 6902	POLYESTER 0.056U K 50V
C4651	403 057 3800	POLYESTER 0.1U M 50V
C4652	403 057 3800	POLYESTER 0.1U M 50V
C4751	403 057 3800	POLYESTER 0.1U M 50V

Ref. No.	Part No.	Description
C4752	403 057 3800	POLYESTER 0.1U M 50V
C4851	403 057 3800	POLYESTER 0.1U M 50V
C4852	403 057 3800	POLYESTER 0.1U M 50V
R4654	401 010 5601	CARBON 5.6 JB 1/2W, FLAME PROOF
R4754	401 010 5601	CARBON 5.6 JB 1/2W, FLAME PROOF
R4854	401 010 5601	CARBON 5.6 JB 1/2W, FLAME PROOF
R4972	401 008 7204	CARBON 2.2K JB 1/2W, FLAME PROOF
R4974	401 019 2007	CARBON 3.9K JB 1/4W, FLAME PROOF
R4975	⚠ 402 023 1703	FUSIBLE RES 100 J- 1/4W
R4976	401 008 7204	CARBON 2.2K JB 1/2W, FLAME PROOF
R4977	401 008 7204	CARBON 2.2K JB 1/2W, FLAME PROOF
R4979	⚠ 402 023 1703	FUSIBLE RES 100 J- 1/4W

SPEAKER TERMINAL P.C.BOARD ASSY

Ref. No.	Part No.	Description
112	⚠ 614 223 1449	ASSY, PCB, SP-SOCKET
	614 221 3438	TERMINAL, 4P, SPEAKER
	614 222 1327	TERMINAL, 2P, WOOFER
RY4901	614 219 2689	RELAY, 2-MAKE, SPEAKER
or	614 224 4531	RELAY, 2-MAKE, SPEAKER
RY4902	614 219 7226	RELAY, 1-MAKE, WOOFER
or	614 224 4548	RELAY, 1-MAKE, WOOFER
CN4979	614 020 1253	SOCKET, 6P, TO POWER 2
D4928	407 005 4505	DIODE DS442X
C50	403 057 1202	POLYESTER 0.01U M 50V
C51	403 057 1202	POLYESTER 0.01U M 50V
C52	403 057 1202	POLYESTER 0.01U M 50V

P.T PRIMARY P.C.BOARD ASSY

Ref. No.	Part No.	Description
113	⚠ 614 223 1456	ASSY, PCB, P.T PRIMARY
	⚠ 614 017 8203	TERMINAL BOARD, AC-IN
or	⚠ 614 123 2089	TERMINAL, AC-IN
	⚠ 614 208 4540	FUSE HOLDER, FOR F4901
or	⚠ 614 123 0023	BRACKET FUSE, FOR F4901
L4902	⚠ 614 221 3469	INDUCTOR, FERITE

P.T SECONDARY P.C.BOARD ASSY

Ref. No.	Part No.	Description
114	⚠ 614 223 1463	ASSY, PCB, P.T SECONDARY
	614 226 9213	SOCKET, 3P W/LEAD, TO CD (CN4961)
ICP4921	⚠ 614 002 3374	IC-PROTECTOR ICP-N38
ICP4922	⚠ 614 002 3374	IC-PROTECTOR ICP-N38
CN4960	614 020 1222	SOCKET, 3P, TO POWER 1
CN4961	614 020 6555	SOCKET, 3P, TO CD
CN4972	614 020 1239	SOCKET, 4P, TO POWER 1
D4924	⚠ 407 004 9105	DIODE DSF10C
D4925	⚠ 407 004 9105	DIODE DSF10C
D4926	⚠ 407 004 9105	DIODE DSF10C
D4927	⚠ 407 004 9105	DIODE DSF10C
C4972	403 057 3800	POLYESTER 0.1U M 50V
R4967	⚠ 402 039 3708	RESISTOR 0.33 J- 1W

PARTS LIST

CD P.C.BOARD ASSY

Ref. No.	Part No.	Description
115	⚠ 614 221 7979	ASSY, PCB, CD
	⚠ 614 217 7273	LUG, L=50MM, LEAD RETAINER
	614 121 5891	HEAT SINK, FOR IC1601
or	614 121 6829	HEAT SINK, FOR IC1601
	614 016 3865	PLUG, 4P, TP1~4
T1101	614 194 3596	FILTER, RF COIL
L1301	614 028 4256	FILTER, CHOKE, 1000UH
L1401	614 028 4133	FILTER, CHOKE, 1000UH
X1301	614 215 5523	RESONATOR, 4.19MHZ
or	614 215 5561	RESONATOR, 4.19MHZ
X1302	614 220 7758	RESONATOR, 32KHZ
X1401	614 215 5509	RESONATOR, 8.64MHZ
or	614 215 5547	RESONATOR, 8.64MHZ
SVR1102	614 003 3120	SEMI-FIXED V.R, 100K OHM (B), T BALANCE
or	614 204 1956	SEMI-FIXED V.R, 100K OHM (B), T BALANCE
or	614 223 1944	SEMI-FIXED V.R, 100K OHM (B), T BALANCE
SVR1104	614 003 3090	SEMI-FIXED V.R, 20K OHM (B), T OFFSET
or	614 204 1918	SEMI-FIXED V.R, 20K OHM (B), T OFFSET
or	614 223 1913	SEMI-FIXED V.R, 20K OHM (B), T OFFSET
CN1001	614 017 2577	PLUG, 6P, PICK-UP SENSER
CN1002	614 220 2739	PLUG, 6P, PICK-UP ACTUATER
CN1003	614 017 2553	PLUG, 4P, CD MOTOR
CN1004	614 017 2546	PLUG, 3P, CD MECHANISM SW.
CN1008	614 017 2652	PLUG, 14P, TO LCD
CN1009	614 017 2638	PLUG, 12P, TO LCD
CN1700	614 017 2553	PLUG, 4P, TO FRONT (IR)
CN1705	614 017 2560	PLUG, 5P, TO TUNER & PRE-AMP.
CN1710	614 017 2102	PLUG, 3P, TO P.T SEC
CN3006	614 017 2546	PLUG, 3P, TO DECK
PL1102	614 194 3619	O.S.C COIL, PLL
IC1101	409 124 6507	IC LA9200NM
IC1201	⚠ 409 018 5500	IC LA6510
IC1202	⚠ 409 018 5500	IC LA6510
IC1301	410 099 9707	IC CXP5078H-501Q
IC1401	409 200 0702	IC LC7860KA
IC1402	409 123 7109	IC LC3517BS-15
or	409 209 0307	IC UM6116K-2
IC1501	409 136 7509	IC LC7881-C
IC1502	409 208 0001	IC M5218AP
or	409 018 4503	IC LA6458DS
or	409 036 7005	IC M5218P
IC1601	⚠ 409 189 4203	IC M5278D05
IC1602	⚠ 409 224 2102	IC AN79N05
Q1101	405 080 7107	TR DTA113ZS
Q1201	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1202	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1203	405 001 0309	TR RN1203
or	405 000 4407	TR DTC124ES
Q1206	405 033 6805	TR 2SD1468S-S
Q1207	405 035 1600	TR RN1211
or	405 000 3400	TR DTC114TS
Q1323	405 035 1600	TR RN1211
or	405 000 3400	TR DTC114TS
Q1324	405 035 1600	TR RN1211
or	405 000 3400	TR DTC114TS
Q1325	405 002 1305	TR 2SA1048-Y
or	405 006 1806	TR 2SA933S-R
or	405 006 1905	TR 2SA933S-S
Q1326	⚠ 405 099 1004	TR 2SD592-S
or	⚠ 405 099 7501	TR 2SD592-R
Q1327	⚠ 405 099 0908	TR 2SB621-S
or	⚠ 405 099 7303	TR 2SB621-R
Q1501	405 014 5209	TR 2SC2458GR
Q1501	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1503	405 035 1600	TR RN1211
or	405 000 3400	TR DTC114TS
Q1504	405 035 1600	TR RN1211
or	405 000 3400	TR DTC114TS
Q1505	405 035 1600	TR RN1211
or	405 000 3400	TR DTC114TS
Q1506	405 035 1600	TR RN1211
or	405 000 3400	TR DTC114TS
Q1601	405 082 4609	TR DTA123YS
Q1602	405 001 0309	TR RN1203
or	405 000 4407	TR DTC124ES
Q1603	405 082 4609	TR DTA123YS
D1101	407 105 0100	VARACTOR DI SVC211-B-AL
or	408 000 0103	VA SVC211SP-B2-AUD
D1103	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1104	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1105	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1106	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1201	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1202	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1314	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1315	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1601	⚠ 407 004 9105	DIODE DSF10C
or	⚠ 407 012 3300	DIODE 1SR35-200A
D1602	⚠ 407 004 9105	DIODE DSF10C
or	⚠ 407 012 3300	DIODE 1SR35-200A
D1603	⚠ 407 004 9105	DIODE DSF10C
or	⚠ 407 012 3300	DIODE 1SR35-200A
D1604	⚠ 407 004 9105	DIODE DSF10C
or	⚠ 407 012 3300	DIODE 1SR35-200A
D1607	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1608	407 053 6308	ZENER DIODE MTZ5.1B
D1609	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1610	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
C1117	403 067 6204	MT-COMPO 0.15U J 50V
C1133	403 080 5000	POLYPRO 1000P J 100V
C1235	403 154 2102	NP-ELECT 1U M 50V
C1511	403 056 7908	POLYESTER 1000P K 50V
C1512	403 056 7908	POLYESTER 1000P K 50V
C1606	403 043 3104	ELECT 2200U M 16V
C1607	403 043 3104	ELECT 2200U M 16V

LAMP P.C.BOARD ASSY

Ref. No.	Part No.	Description
116	⚠ 614 223 1470	ASSY, PCB, LAMP
CN2402	614 020 6548	SOCKET, 2P, TO LCD
PL2401	614 045 9661	LAMP, 12V 70MA
PL2402	614 045 9661	LAMP, 12V 70MA

REGULATOR IC P.C.BOARD ASSY

Ref. No.	Part No.	Description
117	⚠ 614 225 7555	ASSY, PCB, REGULATOR IC
CN4982	614 020 6555	SOCKET, 3P, TO POWER 1
IC4917	⚠ 409 078 2402	IC L7812ML
or	⚠ 409 122 6202	IC NJM7812FA

EXPLODED VIEW & PARTS LIST(SPEAKER SYSTEM)
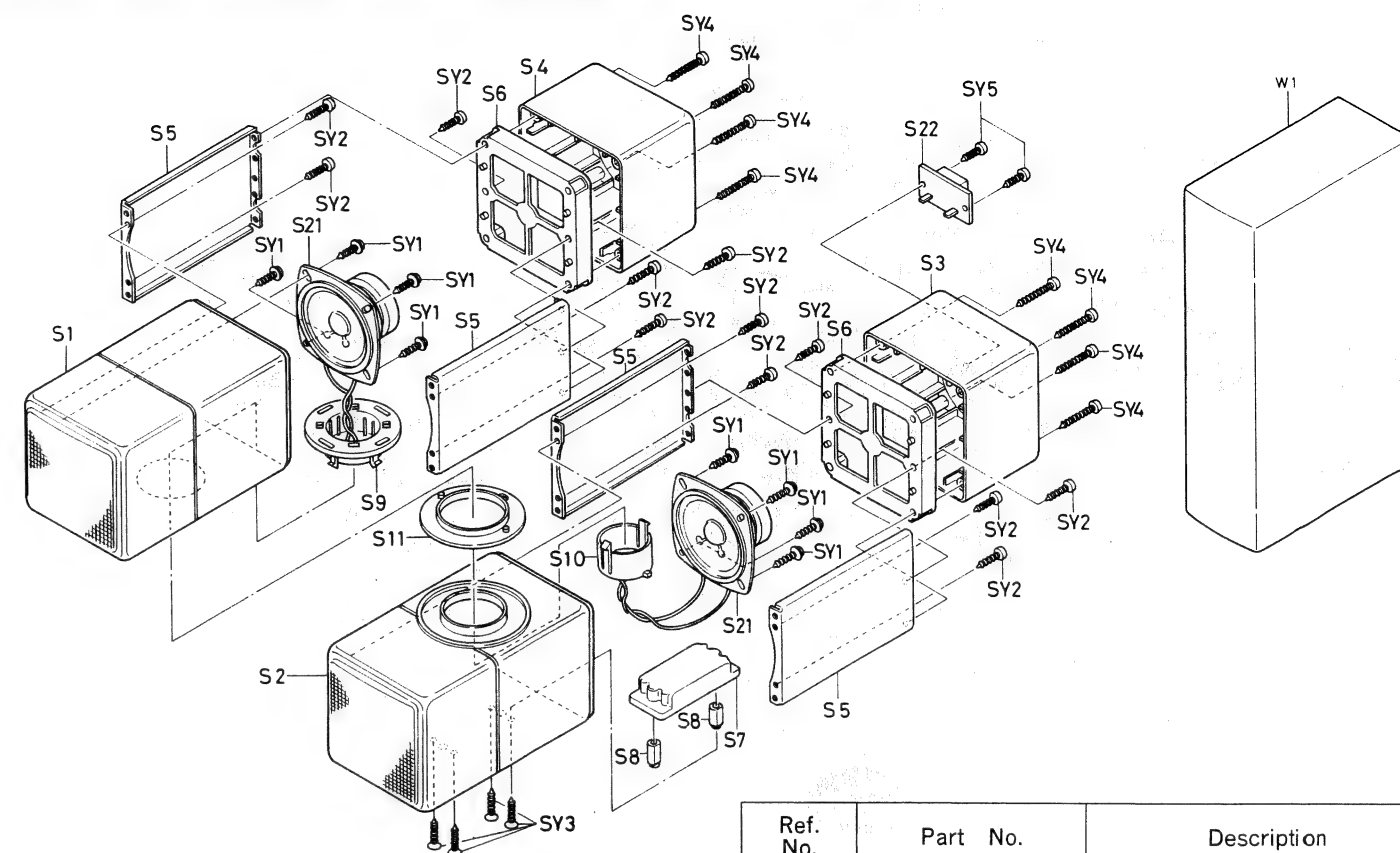
Ref. No.	Part No.	Description
IC4917	⚠ 409 168 2107	IC UPC7812HF
or	⚠ 409 001 7603	IC AN7812F

PACKING & ACCESSORIES (SX-SF3)

Ref. No.	Part No.	Description
	614 224 7655	INNER CARTON (EUROPE)
	614 224 7662	INNER CARTON (SPAIN)
	614 214 5128	PAD, FRONT (L)·BACK (R)
	614 214 5135	PAD, FRONT (R)·BACK (L)
	614 214 5111	PAD, CORNER PAD
	614 176 4207	INNER POLYE COVER, SP-S (2 USED)
	614 212 2570	INNER POLYE COVER, SP-W
	614 176 1459	INNER POLYE COVER, ACCESSARY
	614 211 5169	SHEET, SP-S (2 USED)
	614 211 4087	SHEET, SP-W
	614 205 5717	WIRE, 2.5M, SP-S (2 USED)
	614 211 1734	WIRE, 5.0M, SP-W

FIXING PARTS (SX-SF3)

Ref. No.	Part No.	Description
SY1	411 020 8905	SCR S-TPG BRZ + FLG 3X10
SY2	411 021 3503	SCR S-TPG BIN 3X10
SY3	411 022 3106	SCR S-TPG FLT 3X12
SY4	411 023 6700	SCR S-TPG PAN 3X25
SY5	411 021 4104	SCR S-TPG BIN 3X12

ELECTRICAL PARTS (SX-SF3)

Ref. No.	Part No.	Description
S21	614 224 0694	SPEAKER
S22	614 211 1703	TERMINAL

CABINET & CHASSIS (SX-SF3)

Ref. No.	Part No.	Description
W1	614 224 8270	ASSY, CABINET, SPEAKER
S1	614 224 2667	ASSY, CABINET, LOWER
S2	614 224 2674	ASSY, CABINET, UPPER
S3	614 224 2681	ASSY, CABINET, REAR, LOWER
S4	614 224 2780	CABINET, REAR, UPPER
S5	614 210 6631	MOUNT-M, REAR CONNECT
S6	614 210 6648	MOUNT-M, REAR REINFORCE
S7	614 210 6655	MOUNT-M, POST
S8	614 210 6686	POST, SP BOX HOLD
S9	614 210 6662	JOINT, CABINET CONNECT
S10	614 210 6679	LOCK, CABINET CONNECT
S11	614 210 6693	SPACER, CABINET CONNECT
S12	614 125 6443	CUSHION, LEAD FIX
S13	614 224 7099	RATING PLATE

REMOTE CONTROLLER (RB-SF3)

Ref. No.	Part No.	Description
	614 226 1651	POLY COVER, REMOCON
R1	614 226 0905	ASSY, REMOCON
R2	614 226 0909	LID, BATTERY

Ref. No.	Part No.	Description
Q3	405 099 0908	TR 2SB621-S
D1	407 004 9105	DIODE DSF10C
or	407 012 3300	DIODE 1SR35-200A
D2	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3	407 051 6706	ZENER DIODE GZS5.1Y
or	407 053 6308	ZENER DIODE MTZ5.1B

TAPE MECHANISM (TM-SF3J)

Ref. No.	Part No.	Description
M1	614 219 9657	ASSY, CHASSIS, TAPE MECHANISM
M2	614 195 9139	SPRING PLATE, CASSETTE PRESSURE
M3	614 219 9671	ASSY, FLYWHEEL, REV
M4	614 219 9688	ASSY, FLYWHEEL, NOR
M5	412 034 4709	SPECIAL WASHER, REV FW FIX
M6	412 014 3005	SPECIAL WASHER, NOR FW FIX
M7	412 029 8200	SPECIAL WASHER, REV FW OIL PROOF
M8	412 012 7005	SPECIAL WASHER, NOR FW OIL PROOF
M9	614 219 9596	COMMUTATE MOTOR ASSY, MECHANISM DRIVE
M10	614 223 8677	BRACKET-E, MOTOR
M11	614 219 9954	BELT, SQUARE, DECK 1
M12	614 219 9961	BELT, SQUARE, DECK 2
M13	614 195 8644	PULLEY, DUMMY
M14	412 022 0607	SPECIAL WASHER, D-PULLEY FIX
M15	614 220 0001	LEVER, PLAY GEAR
M16	614 220 1657	ASSY, GEAR, PLAY CLUTCH
M17	614 220 0261	PIPE, PLAY SLIP FIX
M18	614 224 5293	CUSHION, BELT TOUCH (B)
M19	614 224 5309	CUSHION, BELT TOUCH (A)
M20	614 220 1152	SPRING, TENS, PLAY LEVER RESET
M21	614 219 9817	GEAR, RELAY FIXED
M22	614 220 0261	PIPE, RELAY GEAR FIX
M23	614 220 1664	ASSY, GEAR, TAKE UP MOVE
M24	614 220 0025	LEVER, TAKE UP MOVE (B)
M25	614 220 1268	SPRING, WIRE, REEL CHANGE CLICK (B)
M26	614 219 9848	GEAR, REEL RELAY
M27	614 219 9831	GEAR, REEL
M28	614 219 9886	REEL, RIGHT
M29	614 219 9893	REEL, LEFT
M30	614 220 1251	SPRING, COMP, BACK TENSION, LEFT REEL
M31	614 219 9695	ASSY, LEVER, PINCH ROLLER, LEFT
M32	614 219 9701	ASSY, LEVER, PINCH ROLLER, RIGHT
M33	614 220 1282	SPRING, WIRE, PINCH, LEFT
M34	614 220 1275	SPRING, WIRE, PINCH, RIGHT
M35	614 220 0070	LEVER, BRAKE, RIGHT
M36	614 220 0087	LEVER, BRAKE, LEFT
M37	614 220 0162	SLIDE, DOOR LOCK (A)
M38	614 220 0179	SLIDE, DOOR LOCK (B)
M39	614 220 0247	SLIDE, EJECT RELAY (A)
M40	614 220 0254	SLIDE, EJECT RELAY (B)
M41	614 220 1190	SPRING, TENS, EJECT RELAY RESET
M42	614 220 0339	MAGNETIC COIL, SOLENOID CAM GEAR TRIGGER
M43	614 220 1626	ASSY, PCB, MECHANISM
M44	614 219 9770	SHIELD, HEAD PCB
M45	614 222 8968	PCB, HEAD LEAD RELAY, DECK 1 (P)
M46	614 222 8975	PCB, HEAD LEAD RELAY, DECK 2 (P/R)
M47	614 220 0148	LEVER, DOOR SLIDE LOCK
M48	614 220 1312	SPRING, WIRE, LOCK LEVER RESET
M49	614 220 0124	LEVER, HEAD SLIDE UP (A)
M50	614 220 0131	LEVER, HEAD SLIDE UP (B)
M51	614 220 1688	ASSY, SLIDE, HEAD
M52	614 220 1329	SPRING, WIRE, HEAD SLIDE RESET
M53	614 220 1183	SPRING, TENS, HEAD SLIDE CONTROL
M54	614 219 9763	GUIDE, TAPE
M55	614 220 1633	ASSY, BRACKET-E, HEAD LOCATE
M56	614 220 0292	HEAD, REC/PLAY
M57	614 220 0308	HEAD, PLAY
M58	614 224 4900	GEAR, ROTARY HEAD
M59	412 012 7609	SPECIAL WASHER, HEAD THRUST FIX

Ref. No.	Part No.	Description
M60	614 220 0063	LEVER, SECTOR
M61	614 220 1336	SPRING, WIRE, HEAD CLICK
M62	614 226 5543	SPRING, COMP, AZIMUTH COIL
M63	412 031 2005	SPECIAL SCREW, AZIMUTH BISS
M64	614 221 8235	SPRING, WIRE, HEAD SHIELD EARTH
M65	614 219 9992	LEVER, REV/FOR (A)
M66	614 220 0032	LEVER, REV/FOR (B)
M67	614 219 9855	GEAR, REV/FOR MOVE
M68	614 220 0261	PIPE, REV/FOR GEAR FIX
M69	614 219 9879	GEAR, CAM
M70	614 220 0049	LEVER, MAIN TRIGGER
M71	614 220 0056	LEVER, SUB TRIGGER
M72	614 223 8745	SLIDE, DRIVE
M73	614 220 1299	SPRING, WIRE, DOOR SLIDE RESET
M74	614 220 0186	SLIDE, DECK 1/2 CHANGE
M75	614 220 1169	SPRING, TENS, CHANGE SLIDE RESET
M76	614 220 1176	SPRING, TENS, TRIGGER LEVER CONTROL
M77	614 219 9718	ASSY, SLIDE, HEAD CHANGE
M78	614 220 1305	SPRING, WIRE, HEAD CHANGE SLIDE RESET
M79	614 220 0209	SLIDE, REEL CHANGE NO.1
M80	614 219 9725	ASSY, SLIDE, REEL CHANGE NO.2
M81	614 220 0346	SWITCH, LEAF, PACK SENSOR, S003
M81	614 220 0346	SWITCH, LEAF, PACK SENSOR, S004
M81	614 220 0346	SWITCH, LEAF, CHROME SENSOR, S005
M81	614 220 0346	SWITCH, LEAF, CHROME SENSOR, S006
M81	614 220 0346	SWITCH, LEAF, MISS REC SENSOR, S007
M81	614 220 0346	SWITCH, LEAF, MISS REC SENSOR, S008
M82	614 225 6916	CUSHION, RUBBER, CHASSIS MTG.
M83	614 226 6854	CUSHION, 3X5X1.5MM, R/F LEVER TOUCH

FIXING PARTS (TAPE MECHANISM)

Ref. No.	Part No.	Description
MY1	411 102 6300	SCR PAN-FLG 2.6X2.8, MOTOR FIX
MY2	411 021 6405	SCR S-TPG BIN 3X8, B-MOTOR FIX
MY3	411 044 7205	SCR PAN+SW 2X4, SOLENOID FIX
MY4	411 021 0809	SCR S-TPG BIN 2X6, PCB FIX
MY5	411 022 7807	SCR S-TPG PAN 2X6, TAPE GUIDE FIX
MY6	411 124 9204	SCR PAN PCS 1.6X6, HEAD FIX
MY7	411 018 6401	SCR PAN PCS 2X2, REEL CH NO.2 FIX

TAPE MECHANISM P.C.BOARD ASSY

Ref. No.	Part No.	Description
43	614 220 1626	ASSY, PCB, MECHANISM M43
PH001	407 131 9900	PHOTO COUPLE SPI-335-34-C
PH002	407 131 9900	PHOTO COUPLE SPI-335-34-C
S1	614 224 2575	SWITCH, LEVER, PLAY
S2	614 224 2575	SWITCH, LEVER, STOP
SVR1	614 003 6190	SEMI-FIXED V.R, 20K OHM (B), TAPE SPEED
CN1	614 017 3871	PLUG, 8P, TO DECK AMP
CN2	614 017 3871	PLUG, 8P, TO DECK AMP
CN3	614 035 4935	SOCKET, 4P, TO MOTOR
IC1	614 205 2884	IC PROTECTOR ICP-N10
Q1	405 099 0908	TR 2SB621-S
Q2	405 006 1905	TR 2SA933S-S

EXPLODED VIEW & PARTS LIST (CD PLAYER MECHANISM)
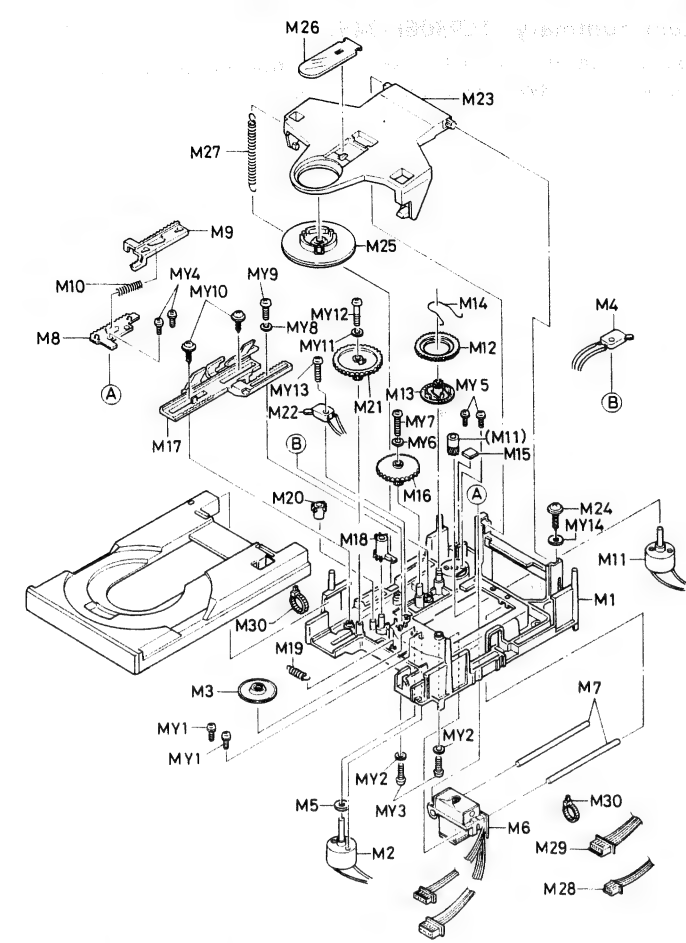
Ref. No.	Part No.	Description
M6	614 218 6855	PICKUP, LASER
M7	614 145 9622	SHAFT, PICK UP GUIDE
M8	614 216 9759	GEAR, PICK UP PACK LOWER
M9	614 216 9766	GEAR, PICK UP PACK UPPER
M10	614 216 9896	SPRING, COMP, PACK BACK
M11	614 217 7068	COMMUTATE MOTOR ASSY, SLED
M12	614 216 9780	GEAR, CLUTCH OUTER
M13	614 216 9797	GEAR, CLUTCH INNER
M14	614 216 9902	SPRING, WIRE, CLUTCH
M15	614 223 4181	SHEET, TRAY UP
M16	614 216 9803	GEAR, PICK UP SLED
M17	614 216 9865	SLIDE, DRIVING
M18	614 216 9810	GEAR, CHANGE PACK
M19	614 216 9889	SPRING, TENS, SLIDE BACK
M20	614 216 9742	GEAR, CHANGE SLIDE
M21	614 216 9773	GEAR, TRAY SLED
M22	614 018 9223	SWITCH, CMOPN (LOAD OUT)
M23	614 216 9858	LEVER, CHUCK
M24	411 020 9100	SCR S-TPG BRZ+FLG 3X12, LEVER FIX
M25	614 219 0104	ASSY, PULLEY, CHUCK
M26	614 211 6654	SPRING PLATE, CHUCK
M27	614 223 2217	SPRING, TENS, CHUCK LEVER BACK
M28	614 224 3138	ASSY, CONNECTOR-S, 3P, TO CD PCB
M29	614 224 8263	ASSY, CONNECTOR-S, 4P, TO CD PCB
M30	614 129 4971	FIXER, LEAD RETAINER

FIXING PARTS (CD MECHANISM)

Ref. No.	Part No.	Description
MY1	411 044 7205	SCR PAN+SW 2X4
MY2	411 087 4704	WASHER V 2X6X0.4
MY3	411 022 8408	SCR S-TPG PAN 2X8
MY4	411 044 7502	SCR PAN+SW 2X5
MY5	411 044 7205	SCR PAN+SW 2X4
MY6	411 087 4704	WASHER V 2X6X0.4
MY7	411 119 8908	SCR S-TPG PAN 2X14
MY8	411 087 4704	WASHER V 2X6X0.4
MY9	411 022 8408	SCR S-TPG PAN 2X8
MY10	411 020 9902	SCR S-TPG BRZ+FLG 3X8
MY11	411 087 4704	WASHER V 2X6X0.4
MY12	411 119 8908	SCR S-TPG PAN 2X14
MY13	411 104 4205	SCR TPG PAN PCS 1.7X8
MY14	411 092 2900	WASHER Z 3X10X1

CD MECHANISM (PM-DAD SF3)

Ref. No.	Part No.	Description
M1	614 216 9728	CHASSIS, CD MECHANISM
M2	614 045 2105	COMMUTATE MOTOR, SPINDLE
M3	614 216 9841	TURN TABLE
M4	614 018 9223	SWITCH, LIMIT
M5	412 032 0208	SPECIAL WASHER, 1.9X5X0.3MM, ADHESIVE ESCAPE STOP

IC BLOCK DIAGRAM

<CD SECTION>

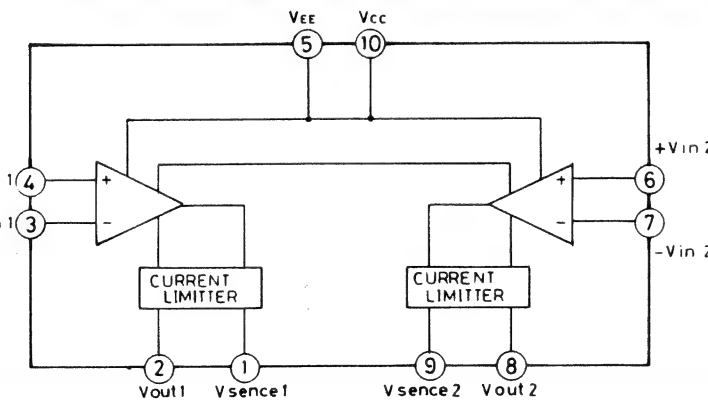### IC1101 LA9200NM (RF Amplifier & Servo System)
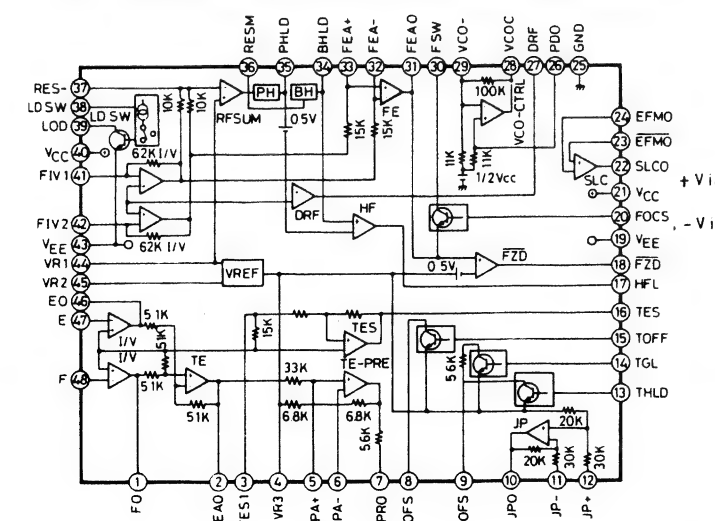
IC1201·1202 LA6510 (Dual Operational Amplifier)
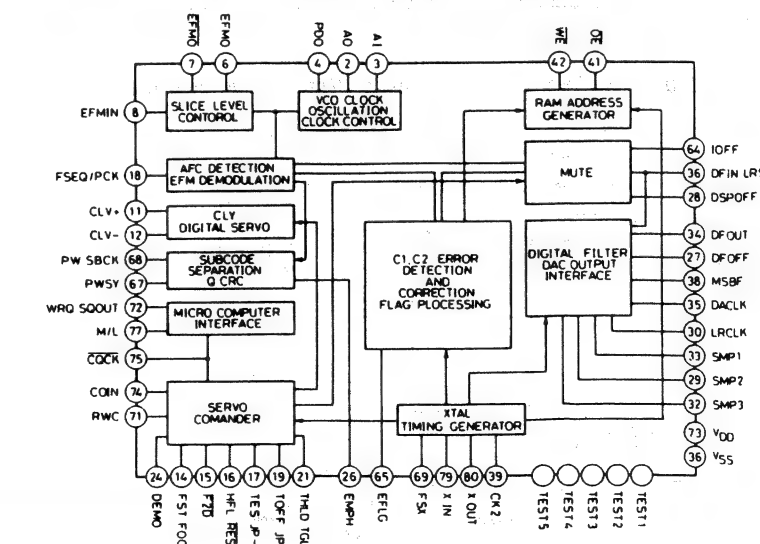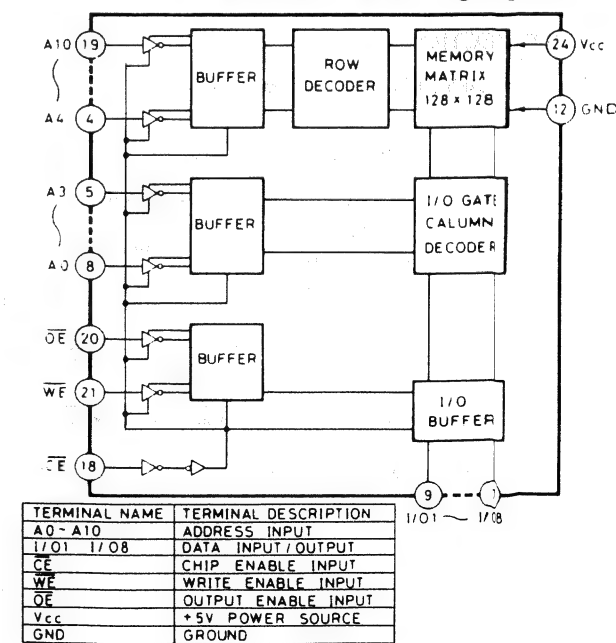

IC BLOCK DIAGRAM

IC1301 Pin Function of CXP5078H-501 (Micro Processor)

No	Pin Name	Description	Terminal Circuit Type	No	Pin Name	Description	Terminal Circuit Type
1	SEG18	LCD Segment Output	Transfer Gate	41	DRF	DRF Input from LA9200N	Inverter
2	SEG17	LCD Segment Output	Transfer Gate	42	XRST	Reset Control Output of DSP	3 State
3	SEG16	LCD Segment Output	Transfer Gate	43	NC	Non Used	Open
4	SEG15	LCD Segment Output	Transfer Gate	44	CQCK	CQCK Output to LC7860N	Pull up
5	SEG14	LCD Segment Output	Transfer Gate	45	COIN	COIN Output to LC7860N	Pull up
6	SEG13	LCD Segment Output	Transfer Gate	46	SQOUT	SQOUT Input from LC7860N	Schmitt
7	SEG12	LCD Segment Output	Transfer Gate	47	RWC	RWC Output to LC7860N	3 State
8	SEG11	LCD Segment Output	Transfer Gate	48	POWER	Inverter Input	Inverter
9	SEG10	LCD Segment Output	Transfer Gate	49	FUN.OUT	CD Function Output (150.650msec"H")	3 State
10	SEG9	LCD Segment Output	Transfer Gate	50	C.COPY	Com. Copy Output to Deck (150msec"H")	3 State
11	SEG8	LCD Segment Output	Transfer Gate	51	DUBIN	REC State Input from Deck (REC PAUSE = "H")	Pull up
12	SEG7	LCD Segment Output	Transfer Gate	52	OPEN	OPEN Switch Input	Pull up
13	SEG6	LCD Segment Output	Transfer Gate	53	LIMIT	LIMIT Switch Input	Pull up
14	SEG5	LCD Segment Output	Transfer Gate	54		Not Used (VSS = Input)	Pull up
15	SEG4	LCD Segment Output	Transfer Gate	55	T.OPEN	Open Direction Output of TRAY (SLED)	3 State
16	SEG3	LCD Segment Output	Transfer Gate	56	SLED-B	Open Direction Output of TRAY (SLED)	3 State
17	SEG2	LCD Segment Output	Transfer Gate	57	T.CLOSE	Close Direction Output of TRAY (SLED)	3 State
18	SEG1	LCD Segment Output	Transfer Gate	58	SLED-F	Close Direction Output of TRAY (SLED)	3 State
19	SEG0	LCD Segment Output	Transfer Gate	59	MUT	Muting Output of Analog Audio	3 State
20	COM3	LCD Common Output	Transfer Gate	60	LDON	Laser Output (Laser ON = "L")	3 State
21	COM2	LCD Common Output	Transfer Gate	61		Not Used (VSS = Input)	Schmitt
22	COM1	LCD Common Output	Transfer Gate	62		Not Used (VDD = Input)	Schmitt
23	COM0	LCD Common Output	Transfer Gate	63	CLVG	CLV Gain Output (12cm = "H")	3 State
24	VLC1	LCD Bias Power Source		64	P.CON	Power Control Signal to DSP (CD Except = "H")	3 State
25	VLC2	LCD Bias Power Source		65	FCHG.M	Muting Output when Select to Other Function	3 State
26	VLC3	LCD Bias Power Source		66	A.FUNC	Output of CD and Other Function	3 State
27	VL	Not Used (LCD Bias Cut, Always "H")	Open Drain	67		Not Used (Output)	Pull up
28	IR	Remocon Input	Schmitt	68		Not Used (Output)	Pull up
29	INT	Not Used (Connect VSS)	Schmitt	69		Not Used (Output)	Pull up
30	XTAL	Connect 4.19MHz Oscillator Output		70		Not Used (Output)	Pull up
31	EXTAL	Connect 4.19MHz Oscillator Input	Inverter	71	VSS	GND	
32	RST	Reset	Schmitt	72	TX	Reset	Inverter
33	NC	Open (Internal Connect = VDD)		73	NC	Open (Internal Connect = VDD)	
34	VDD	Power Source		74	TEX	Connect 32.768kHz Oscillation(Input)	
35	AD0	Not Used (VDD)	Inverter	75	VREF	Not Used (VDD = Input)	Open
36	AD1	A/D Converter Input (Key Input)	Inverter	76		Not Used (Output)	Pull up
37	AD2	A/D Converter Input (Key Input)	Inverter	77	SEG22	LCD Segment Output	Transfer Gate
38	AD3	Validate PLAY Key During Dubbing "L" Usually "H"	Inverter	78	SEG21	LCD Segment Output	Transfer Gate
39	WRQ	WRQ Input from LC7860N	Inverter	79	SEG20	LCD Segment Output	Transfer Gate
40	FUNCT	CD Function ("L") Input	Inverter	80	SEG19	LCD Segment Output	Transfer Gate

IC1401 LA7860K (Digital Signal Processor)

IC1402 LC3517BS-15 (Static Random Access Memory)
5k-word × 8-bit High-speed C-MOS
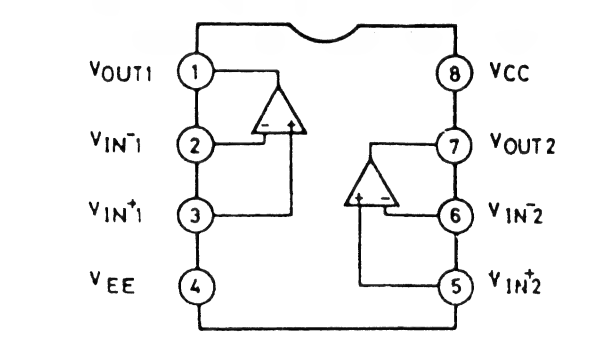

TERMINAL NAME	TERMINAL DESCRIPTION
A0~A10	ADDRESS INPUT
I/O1~I/O8	DATA INPUT/OUTPUT
CE	CHIP ENABLE INPUT
WE	WRITE ENABLE INPUT
OE	OUTPUT ENABLE INPUT
Vcc	+5V POWER SOURCE
GND	GROUND

IC1501 LC7881 (16-Bit D/A Converter)
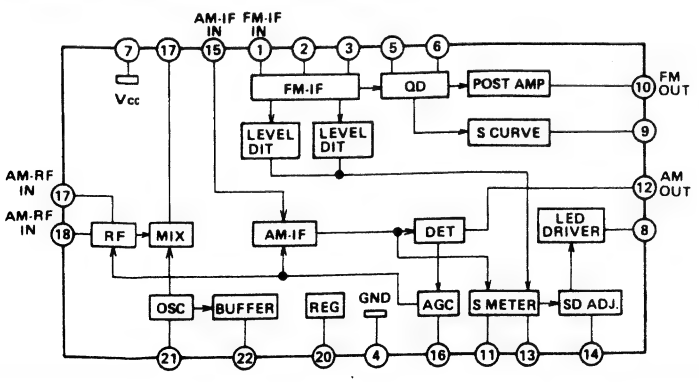
Pin Function of IC1501 (LC7881)

No	Pin Name	Description
1	CH1 OUT	Output Terminal of CH-1
2	VrefH	Input Terminal of Reference Voltage "H"
3	NC	No Connection
4	VDD	+5V Power Supply Terminal
5	WCLK2	Input Terminal of Word-Clock 2. When IF is in "L", internal signal for latching CH-1 data of digital signal is made by using trailing edge WCLK2. When IF is in "H", it needs WCLH2 is in "L".
6	LRCK	Input Terminal of LR Clock. Indicates CH-1 and CH-2 of input digital audio data : indicate CH1 when LRCK is in "H". indicate CH2 when LRCK is in "L".
7	WCLK2	Input Terminal of Word-Clock 1. When IF is in "L", internal signal for latching CH-2 data of digital signal is made by using trailing edge WCLK1. When IF is in "H", internal signal for latching CH-1 and CH-2 data of digital signal is made by using trailing edge WCLK1.
8	DATA	Input Terminal of digital audio data. When IF is in "L", digital audio data is input in bit serial from LSB. When IF is in "H", digital audio data is input in bit serial from MSB.
9	BCLK	Bit-Clock Terminal. This clock is for reading digital audio data into LSI in bit serial and is for PWMDAC.
10	VDD	+5V Power Supply Terminal
11	TSTOUT	Output Terminal for Testing. Ordinarily, leave this terminal open.
12	TST1	Input Terminal for Testing. Ordinarily, ground these terminals.
13	TST2	Input Terminal for Testing. Ordinarily, ground these terminals.
14	IF	Interface Select Terminal. When IF is in "L", digital audio data is input from LSB side. When IF is in "H", digital audio data is input from MSB side.
15	GND	Ground Terminal
16	VrefL	Input Terminal of Reference Voltage "L".
17	GND	Ground Terminal
18	NC	No Connection
19	NC	No Connection
20	CH2OUT	Output Terminal of CH2.

IC1502 LA6458D (Dual Operational Amplifier)

<TUNER SECTION>

IC2201 LA1265S (Tuner System)

IC2301 LA3361 (PLL FM MPX. Stereo Demodulator)
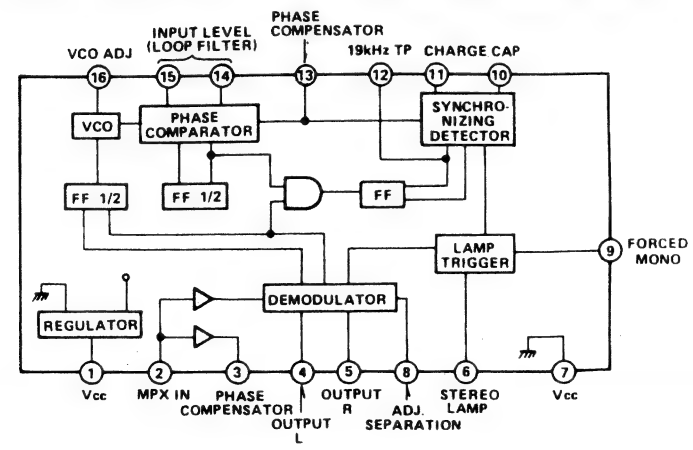
IC2401 TC9306F-045-BS (Frequency Synthesizer System)

System Summary (TC9306F-045)

Combined with PLL LSI TC9172AP, high efficiency digital tuning system with FM/MW 2-band can be made.

BAND

BAND	CODE A B	FREQUENCY (Hz)	STEP (Hz)	Fref (Hz)	IF (Hz)
FM	0 0	87.9 ~ 107.9 M	200K	25K	+10.7M
	1 0	87.50 ~ 108.00 M	50K		+10.7M
	0 1	76.0 ~ 90.0 M	100K		10.7M
	1 1	65.0 ~ 108 M	50K		+10.7M
MW	0 0	530 ~ 1700 K	10K	10K	+450K
	1 0	531 ~ 1602 K			+450K
	0 1	522 ~ 1611 K	9K	9K	+459K
	1 1	522 ~ 1629 K			+450K
LW	1 —	144 ~ 290 K	AUTO MANU 9K/1K	1K	+459K
SW1	1 —	3.2 ~ 7.3 M	5K	5K	+450K
SW2	— 1	9.5 ~ 21.75 M			

TC9306F-045

PORT	No	NAME	FUNCTION	ACTIVE	FIRST SETTING
MUTE	41	MUTE	MUTE OUTPUT	H	H
P2-1	40	REM-DATA	REMOTE INPUT	H	-
P2-2	39	VR UP	VR UP OUTPUT	H	L
P2-3	38	VR DOWN	VR DOWN OUTPUT	H	L
P2-4	37	AUTO/MANUAL	-- AUTO OUTPUT	H	L
P3-1	36	TUNED/SD	TUNED & SD INPUT	L	-
P3-2	35	STEREO	STEREO INPUT	L	-

IC2402 TC9172AP (High-Speed PLL with Pre-Scaler)

TC9172AP

PORT	NO	NAME	FUNCTION	ACTIVE	FIRST SETTING
OT 1	06	FM	FM BAND OUTPUT	H	H
OT 2	07	MW	MW OUTPUT	H	L
OT 3	08	LW	LW BAND OUTPUT	H	L
OT 4	09	F1	F1 OUTPUT	H	L

Pin Function of TC9306F-045

Explanation of terminal functions

Pin No.	Symbol	Terminal name	Description of function and operation	Remarks
22	COM1	LCD common output	Terminal to output common signal output to LCD. It is possible to indicate max. 54 segments by using the matrix S1 S27. At this terminal, three levels of VDD, 1/2 VDD and GND are outputted with intervals of 5 ms at a frequency of 50 Hz.	
54	COM2			
55~60 1~21	S1~S6 S7~S27	LCD segment output	Terminal to output segment signal output to LCD. It is possible to indicate max. 54 segments by using the matrix COM1 and COM2. Data is outputted to these terminals by SEG command (COM1 system) and MARK command (COM2 system). For segment decoding, the decode pattern is made in the ROM area, and it is executed by using the DAL command. Note: During system resetting or when CKSTP command is executed, output is automatically set to "L" level.	
24~27	K0~K3	Key input port	4 bit input port for key matrix input. When KEY command which assigns this port at the operand part is executed, data of these terminals are read in to RAM. All the terminals incorporate pull-down resistor.	
28~34	T0~T6	Key timing output port	4 bit I/O (T0 to T3) or 3 bit (T4 T6) output port. These ports are normally used for key return timing signal output of key matrix.	
35	P3 2 A/D AN1	I/O port 3 A D analog voltage input	2 bit I/O port. At this port it is possible to assign input and output per bit. For this assignment, the content of internal port called PORT 3 I/O CONTROL is used. This terminal is also used for analog input of incorporated 4 bit A/D converter. The switching to A/D converter input is controlled according to the content of PORT 3 I/O CONTROL port.	
36	P3 1 /DC REF	reference voltage input	
37~40	P4 4~ P4 1	I/O port 2	4 bit I/O port. At this port it is possible to assign input and output per bit. For this assignment, the content of internal port called PORT 2 I/O CONTROL port is used.	
41	MUTE	Muting signal output port	1 bit output port. This port is normally used for muting control signal output. Note: When the INH input is changed from "H" to "L" or "L" to "H", the output is automatically set to "H" level.	
42	STB	Strobe pulse output	Serial interface. By executing the SIO command, the externally mounted PLL LSI or an optional IC of peripheral part can be controlled. The serial transferring mode, NCD or NCD, can be selected as programmed.	
43	CK	Serial clock output	
44	SO	Serial data output	
45	SI	Serial data input	

<DECK SECTION>

IC3100 Pin Function of LC66306A-4468

No	Pin Name	Description "Active Level"	No	Pin Name	Description "Active Level"
1	IR	Remocon Signal Input "L"	22	OSC 2	Oscillation 4.19MHz
2	DUB OUT	Dubbing Control Output	23	RESET	Initial Reset Signal Input
3	AF	Auto Function Output	24	R/P	Rec/Play Select Output (REC = "L" · PLAY = "H")
4	C STOP	Call Stop Signal Input "H"	25	AMP A/B	Amp. A/B Select Output (A = "H" · B = "L")
5	PLAY	Head Slide PLAY Position Switch Input "L"	26	A/B	A/B Indicator Output (A = "H" · B = "L")
6	STOP	Head Slide STOP Position Switch Input "L"	27	REC	REC Indicator Output "L"
7	REC F	Forward Side safety Recording Switch Input "L"	28	FWD	FWD Indicator Output "L"
8	REC R	Reverse Side safety Recording Switch Input "L"	29	REV	REV Indicator Output "L"
9	PACK 1	Deck 1 Cassette on/off Detection Switch Input "L"	30	S0	Key Input "L"
10	PACK 2	Deck 2 Cassette on/off Detection Switch Input "L"	31	S1	Key Input "L"
11	REEL 1	Deck 1 Mechanism Reel Signal Input	32	S2	Key Input "L"
12	REEL 2	Deck 2 Mechanism Reel Signal Input	33	S3	Key Input "L"
13	PL	Plunger on/off Output "L-ON"	34	AMSS	Music Blank Detection Signal Input "L"
14	MOTOR	Motor on/off Output "L-ON"	35	DUB	Amp. Dubbing Output
15	H/L	Motor Speed Hi/Low Output "H - Hi Speed"	36	S4	Key Input "L"
16	P.OFF	Power Off Signal Input "H"	37	S5	Key Input "L"
17	P MUTE	PLAY Muting Output "H - ON"	38	S6	Key Input "L"
18	R MUTE	REC Muting Output "H - ON"	39	S7	Key Input "L"
19	TEST	GND	40	VDD	Power Source
20	VSS	Ground	41	DIR	Direction Switch Input
21	OSC 1	Oscillation 4.19MHz	42	TIMER	Timer Switch Input (Play ; L, Off : M, Rec : H)

IC3700 LA3246(Pre & Mixing Amplifier with Electrical Switch)

IC3750 CXA1298AP (Equalizer Amplifier for Record)
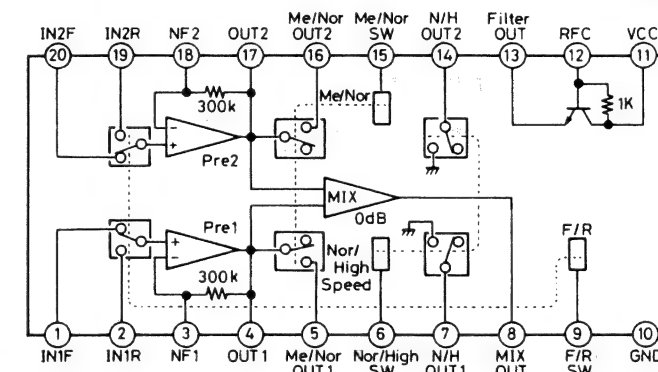
IC3701 TC4066BP (Quad Bilateral Switch)

IC3730 CXA1101P (Dolby B-Type Noise Reduction)
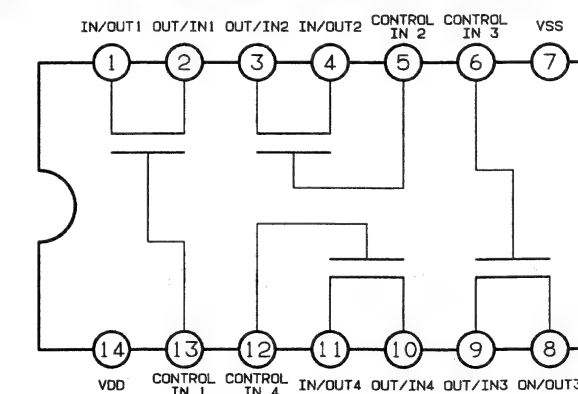
IC3751 µPC1330HA (2-Channel Head Select Switch for Tape Deck)
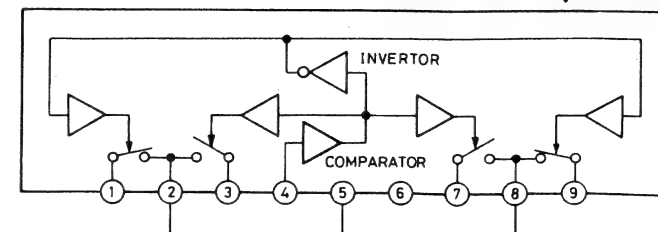
IC BLOCK DIAGRAM

<AMP. SECTION>

IC4901·4905·4906·4911·4912 LA6458DS (Dual Operational Amplifier)

Pins: 1 V_{OUT1}, 2 V_{IN}^-1, 3 V_{IN}^+1, 4 V_{EE}, 5 V_{IN}^+2, 6 V_{IN}^-2, 7 V_{OUT2}, 8 V_{CC}

IC4902 TC9174P (Inter-face = Extension of I/O Ports)

Pins: 14 CK, 13 SI, 12 SO, 11 OP-10, 15 STB, 10 OP-9, 16 VDD, 9 OP-8, 1 GND, 8 OP-7, 2 OP-1, 7 OP-6, 3 OP-2, 4 OP-3, 5 OP-4, 6 OP-5

Blocks: SERIAL I/O CONTROL, LATCH

IC4903 LC7818 (2-Pole 4-Position Analog Function Switch)

Left pins: A1 1 (1SWA), B1 2 (1SWB), C1 3 (1SWC), D1 4 (1SWD), E1 5 (1SWE), SOURCE1 6, TM1 7 (1SWG), OUT1 8 (1SWF), $\overline{TMOUT}$ 10, $\overline{TMCTL}$ 17, $\overline{A_{CTL}}$ 11, $\overline{B_{CTL}}$ 12, $\overline{C_{CTL}}$ 13, $\overline{D_{CTL}}$ 14, $\overline{E_{CTL}}$ 15, $\overline{M_{IN}}$ 19, $\overline{INIT}$ 18

Right pins: 30 A2 (2SWA), 29 B2 (2SWB), 28 C2 (2SWC), 27 D2 (2SWD), 26 E2 (2SWE), 25 SOURCE 2, 24 TM2 (2SWG), 23 OUT2 (2SWF), 22 VDD, 16 VSS, 9 VEE, 20 CR, 21 MUTE

Blocks: I/O CONTROL, F F, LEVEL SHIFT, MUTE CONTROL TIMER

IC4904 TA7764P (Dual Channel Volume / Tone Controller)

Top pins: 20 VCC, 19 CH1 INPUT, 18 TREBLE CH, 17 BASS CL, 16 BASS CLB, 15 CH1 OUTPUT, 14 RIPPLE FILTER, 13 TREBLE CONT., 12 BASS CONT., 11 TONE DEFEAT

Bottom pins: 1 GND, 2 CH2 INPUT, 3 TREBLE CH, 4 BASS CL, 5 BASS CLB, 6 CH2 OUTPUT, 7 BALANCE CONT., 8 VOLUME CONT., 9 LOUD-NESS, 10 V_{REF}

Blocks: CH1 TREBLE/BASS, CH1 VOLUME/BALANCE, CONTROL BIAS V_{REF} CIRCUIT, CH2 TREBLE/BASS, CH2 VOLUME/BALANCE
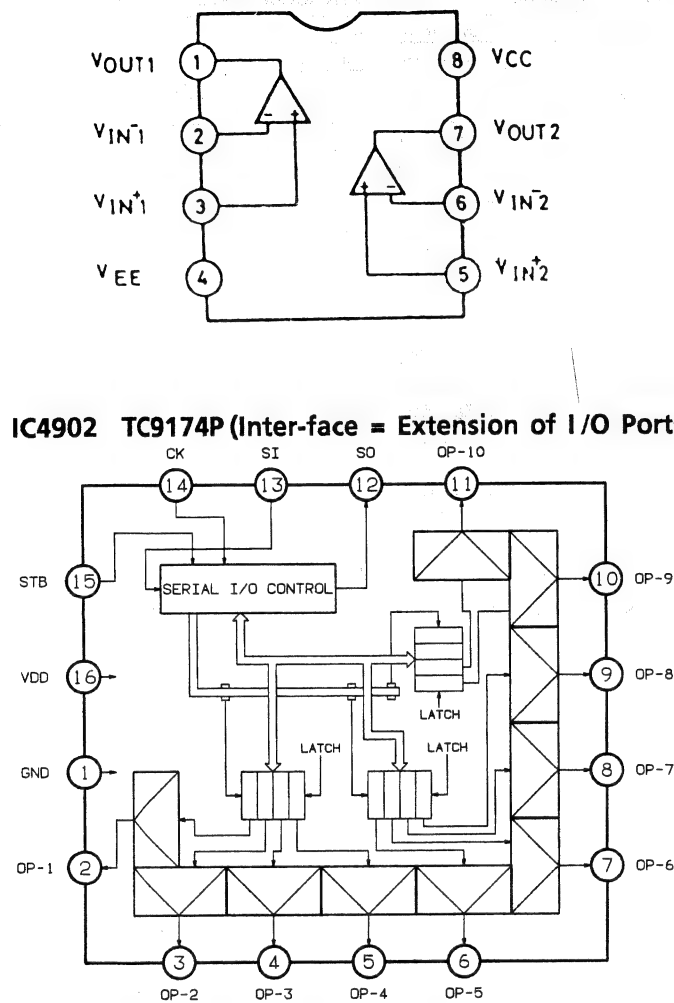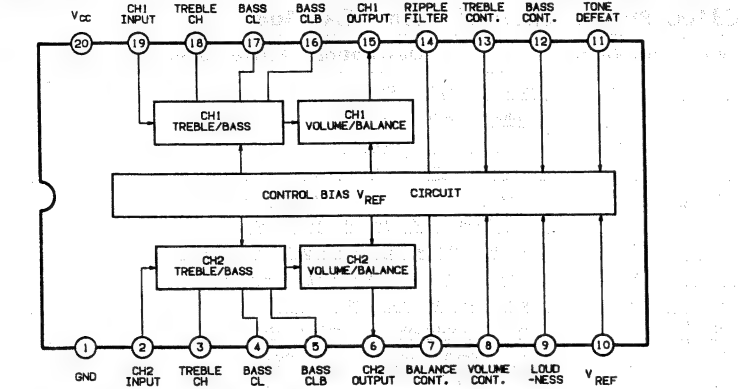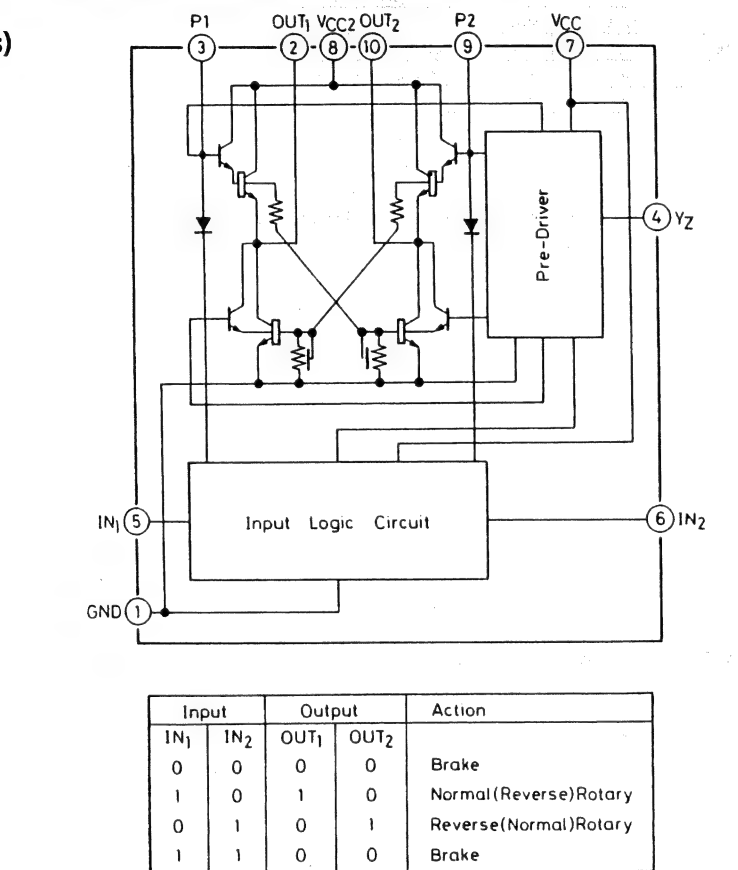
IC4907 LB1641 (Motor Driver)

Top pins: P1 3, OUT1 2, VCC2 8, OUT2 10, P2 9, VCC 7, 4 Y_Z
Side: IN1 5, 6 IN2, GND 1

Blocks: Pre-Driver, Input Logic Circuit

Input		Output		Action
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	Normal (Reverse) Rotary
0	1	0	1	Reverse (Normal) Rotary
1	1	0	0	Brake

IC4917 STK4137MK2 (3-Channel AF Power Amplifier)

Pins: INPUT, FEED BACK, VDD, VSS, VEE, FEED BACK, INPUT, MUTING, FEED BACK
Blocks: FRONT L-CH, REAR, FRONT R-CH

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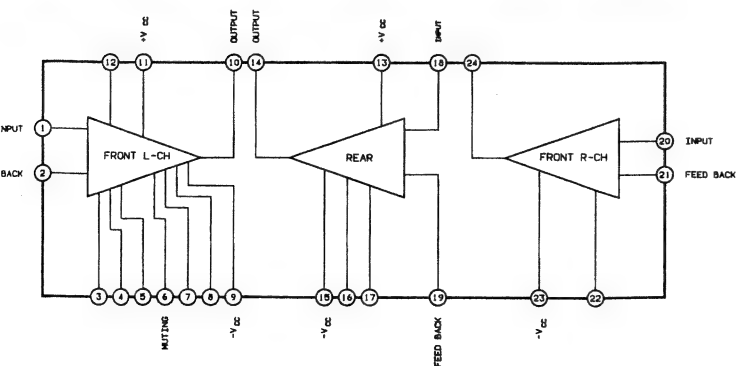
DISPLAY (LCD) PIN DESCRIPTION

NO.1 ... NO.27

Display: FM123 AMW LW 188.85 MHz kHz AUTO·STEREO FM MONO CH
PLAY ► RANDOM SIDE·A
PROG. EDIT REPEAT SIDE·B
COMPUTER REC
C-88-88.88 TRACK MIN SEC
1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20 ▸

NO.1 ... NO.30
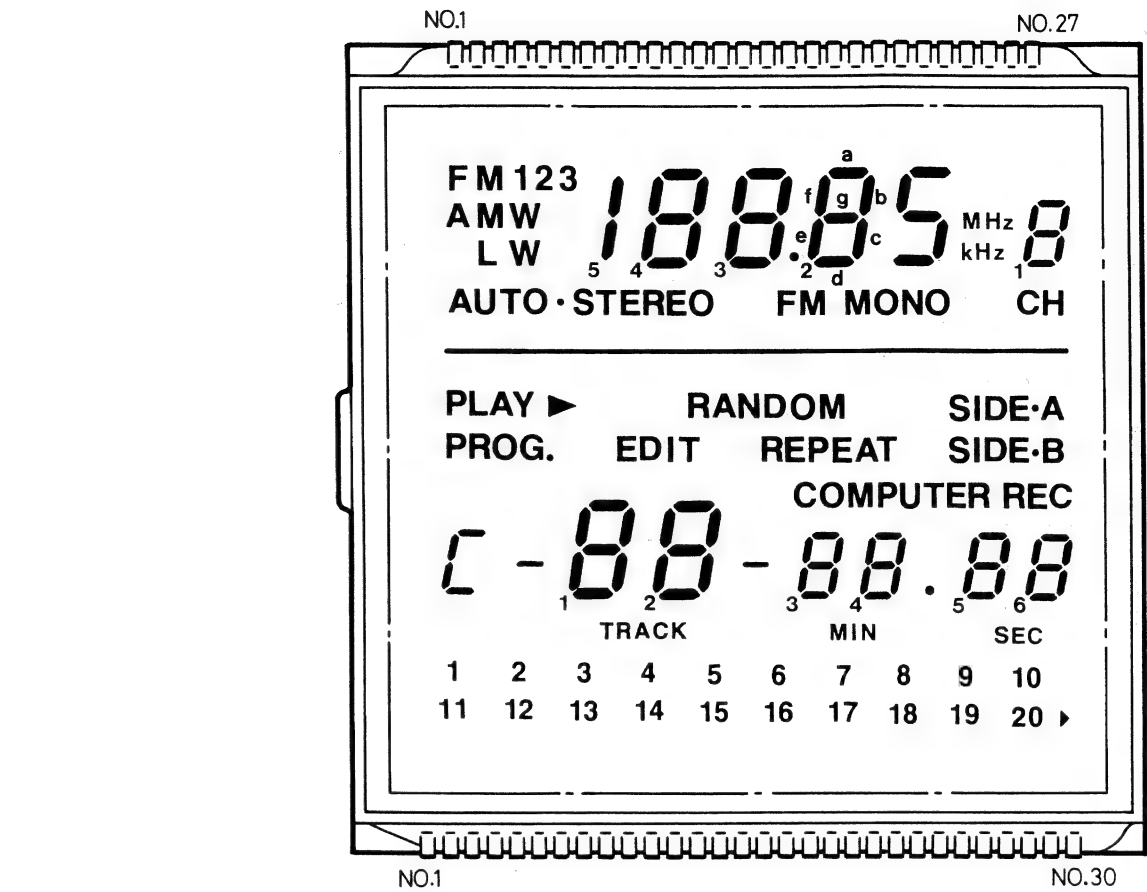
	CD SECTION					TUNER SECTION		
No.	COM.1	COM.2	COM.3	COM.4	No.	COM.1	COM.2	COM.0
1				COM.4	1			COM.0
2	COM.1				2	COM.1		
3		COM.2			3	FM	LW	
4			COM.3		4	W	A	M
5				COM.4	5	1(FM)	2(FM)	
6	1f	1g	1e	1d	6	3(FM)	AUTO	
7	1a	1b	1c	C -	7	5b	5c	
8	2f	2g	2e	2d	8	4f	4b	
9	2a	2b	2c	RANDOM	9	4e	4g	
10				TRACK	10	4d	4c	
11	12	11	2	1	11		4a	
12	14	13	4	3	12	3f	3b	
13	3f	3g	3e	3d	13	3e	3g	
14	3a	3b	3c	-	14	3d	3c	
15	4f	4g	4e	4d	15		3a	
16	4a	4b	4c		16	2f	2b	
17	16	15	6	5	17	2e	2g	
18	18	17	8	7	18	2d	2c	
19	20	19	10	9	19	5	2a	
20	COM.1				20	kHz	MHz	
21		COM.2			21	FM MONO		
22					22		STEREO	
23				MIN. SEC.	23	1f	1b	
24	5f	5g	5e	5d	24	1e	1g	
25	5a	5b	5c		25	1d	1c	
26	6f	6g	6e	6d	26	CH	1a	
27	6a	6b	6c		27		COM.2	
28	REPEAT	SIDE A	SIDE B	PROG.				
29		EDIT	PLAY▸	COMPUTER REC				
30				------				

1. TN CLEAR TYPE, NEGATIVE INDICATION
2. 1/4 DUTY, 1/3 BIAS (CD SECTION)
   1/2 DUTY, 1/2 BIAS (TU SECTION)

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(Unit : Voit)

IC1101 LA9200NM

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop Mode	0		0.3	0	0	0	0	0	0	0	0	0	0	4.8	4.3	4.1
Play Mode	-0.3	Flun	0.2	0											0	3.8
Measuring Pin No.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Stop Mode	4.1	4.0	-5.0	0	4.9	3.6	1.5	1.5	0	2.4	0	2.4	2.4	0	0	0.6
Play Mode	0	4.0	-5.0	0	4.9	2.5	2.6	2.4	0	2.4	4.16	2.5	2.4	Fluc	-0.3	0.3
Measuring Pin No.	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Stop Mode	0.6	0.2	-0.2	-0.1	0	4.2	4.9	5.0	0	0	-5.0	0	0	0	0	0
Play Mode	0.3	0.8	2.9	1.7		0.3	-5.0	5.0			-5.0					

IC1202-1202 LC6510

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10
Stop Mode	Fluc	Fluc	Fluc	Fluc	-9.8	Fluc	Fluc	Fluc	Fluc	9.7
Play Mode	0		0	0	-9.8	0	0	0.3	0.3	9.7

IC1301 CXP5078H-501

Measuring Pin No.	1~23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Stop Mode	Flun	3.3	1.7	0	0	4.3	0	2.4	2.4	5.0		5.0	5.0	5.0	5.0	5.0
Play Mode																
Measuring Pin No.	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Stop Mode	Fluc	Fluc	0	4.9		4.9	Fluc	Fluc	Fluc	0(4.3)	Pulse	Pulse	Pulse	5.0	5.0	
Play Mode			4.2													
Measuring Pin No.	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Stop Mode	4.9	4.9	4.9	4.9	4.2	4.9			4.5	0(5.0)						
Play Mode									0(4.5)							
Measuring Pin No.	71	72	73	74	75	76	77	78	79	80						
Stop Mode	0	2.3		1.7	5.0		Flun	Flun	Flun	Flun						
Play Mode																

Pin 48-64 : CD (OTHER)   Pin 55-56 : TRAY OPENING   Pin 57-58 : TRAY CLOSING   Pin 63 : 8(12) Cm DISC

IC1401 LC7860K

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop Mode		2.5	2.4	2.4	0	1.4	1.2	2.5	0	4.9				3.0	4.2	4.2
Play Mode		2.5	2.4	2.4	0	2.4	2.4	2.5	0	4.9	0.8	0	0	3.0	4.2	0
Measuring Pin No.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Stop Mode		2.5	4.86	0	0	0	0	0					1.0	2.5	4.9	2.0
Play Mode	4.17	2.5	4.86										1.0	2.5	4.9	2.0
Measuring Pin No.	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Stop Mode	1.0	2.0	2.4		2.4		2.4	2.4	3.57	4.5	2.4	2.4	2.4	2.4	2.4	2.4
Play Mode	1.0	2.3	2.4		2.4		2.4	2.4	3.57	4.5	2.4	2.4	2.4	2.4	2.4	2.4
Measuring Pin No.	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Stop Mode	1.6	1.6	1.6	1.6	1.4	1.4	1.4	0	3.6	3.6	3.6	1.6	3.6			
Play Mode	1.6	1.6	1.6	1.6	2.6	2.6	2.6	0	2.4	2.4	2.4	2.4	2.4			
Measuring Pin No.	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Stop Mode	2.3		0.3		2.4	0			4.9		4.9	5.0	0		2.3	2.3
Play Mode	Fluc		0.3		Fluc	2.4	0.2	Fluc	Fluc	4.9	Fluc	4.9	5.0	0	2.3	2.3

IC1402 LC3517BS-15

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop Mode	2.4	2.4	2.4	2.4	1.6	1.6	1.6	1.6	2.5	1.4	1.4	0	3.6	3.6	3.6	1.7
Play Mode										2.2	2.5		2.6	2.6	2.6	2.4
Measuring Pin No.	17	18	19	20	21	22	23	24								
Stop Mode	3.6	0		2.4	3.5	4.5	2.5	2.5	4.9							
Play Mode	2.3		2.4	3.5												

IC1501 LC7881-C

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop Mode	2.0	4.0		5.0	1.0	2.5	1.0	0	2.3	5.0		0	0	0	0	0
Measuring Pin No.	17	18	19	20												
Stop Mode	0			2.0												

IC1502 LC6458DS

Measuring Pin No.	1	2	3	4	5	6	7	8
Stop Mode	Fluc	Fluc	Fluc	-5.0	Fluc	Fluc	Fluc	5.0
Play Mode								

Fluc : Fluctuetion

TRANSISTOR

(Unit : Voit)

Transistor No.	Q1101			Q1201			Q1202			Q1203		
Measuring Pin Name	E	C	B	E	C	B	E	C	B	E	C	B
Stop Mode	4.98	0.5	4.98	0	0.3	-0.6	0	0	0.6	0	2.2	
Play Mode		4.86	-4.98									

Transistor No.	Q1206			Q1207			Q1323			Q1324		
Measuring Pin Name	E	C	B	E	C	B	E	C	B	E	C	B
Stop Mode	0	0	0.6	0	0	0.6		5.6			4.2	0
Play Mode				0	0.3	-0.7						

Transistor No.	Q1325			Q1326			Q1327			Q1501		
Measuring Pin Name	E	C	B	E	C	B	E	C	B	E	C	B
Stop Mode	0	-5.6	0.7	4.9	4.9	5.6	-5.0	-5.0	-5.6	0	4.9	4.7
Play Mode												

Transistor No.	Q1503			Q1504			Q1505			Q1506		
Measuring Pin Name	E	C	B	E	C	B	E	C	B	E	C	B
Stop Mode	0	0	0	0	0	0	0	0	4.2	0	0	4.2
Play Mode	0	0	2.0	0	0	2.0	0	0	-5.0	0	0	-5.0

Transistor No.	Q1601			Q1602			Q1603		
Measuring Pin Name	E	C	B	E	C	B	E	C	B
Stop Mode	5.0	-3.0	5.0	0	5.0	0	0	4.3	0
Play Mode							0	-5.0	4.3

SCHEMATIC DIAGRAM (TAPE MECHANISM)

CD P.C.B

L C D
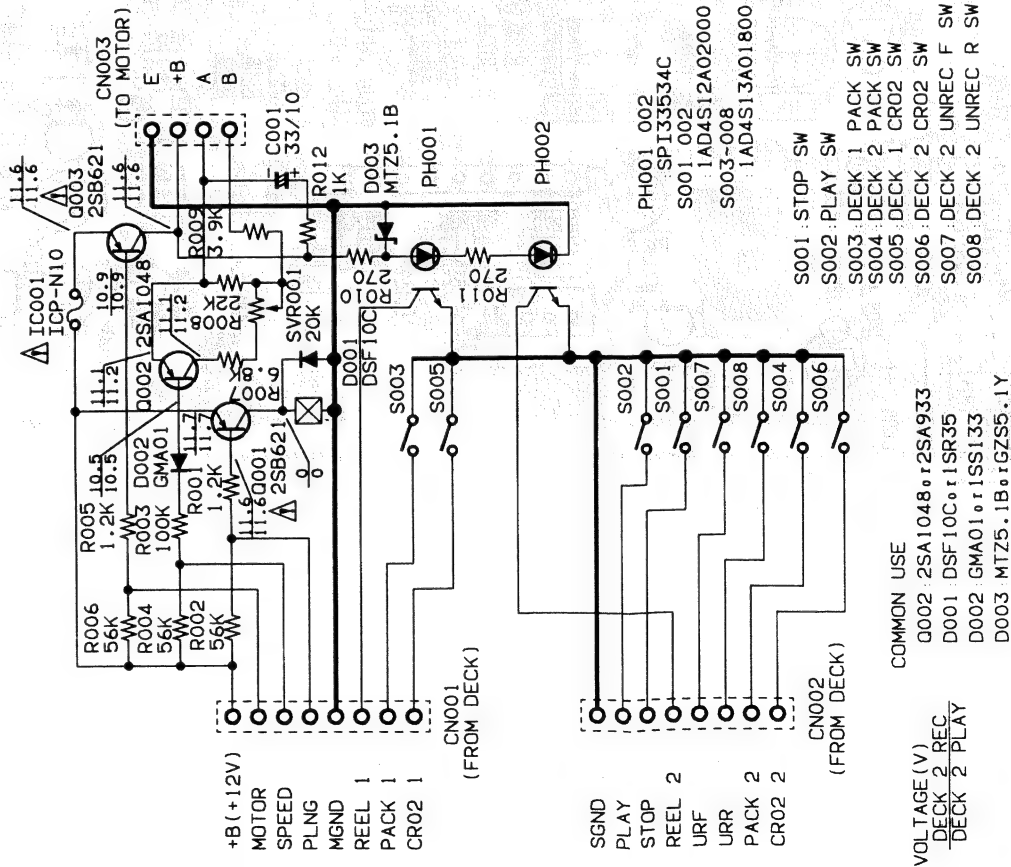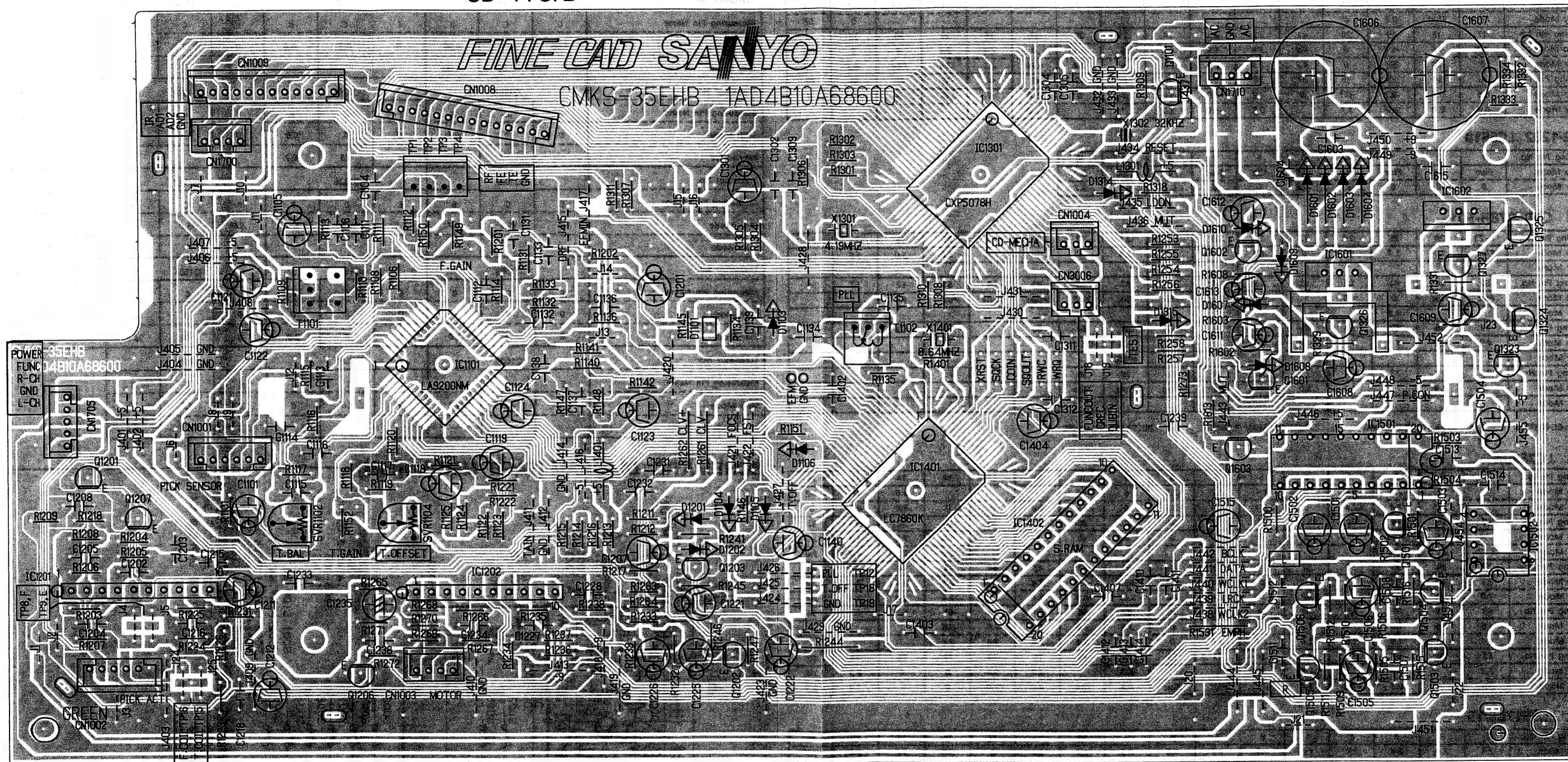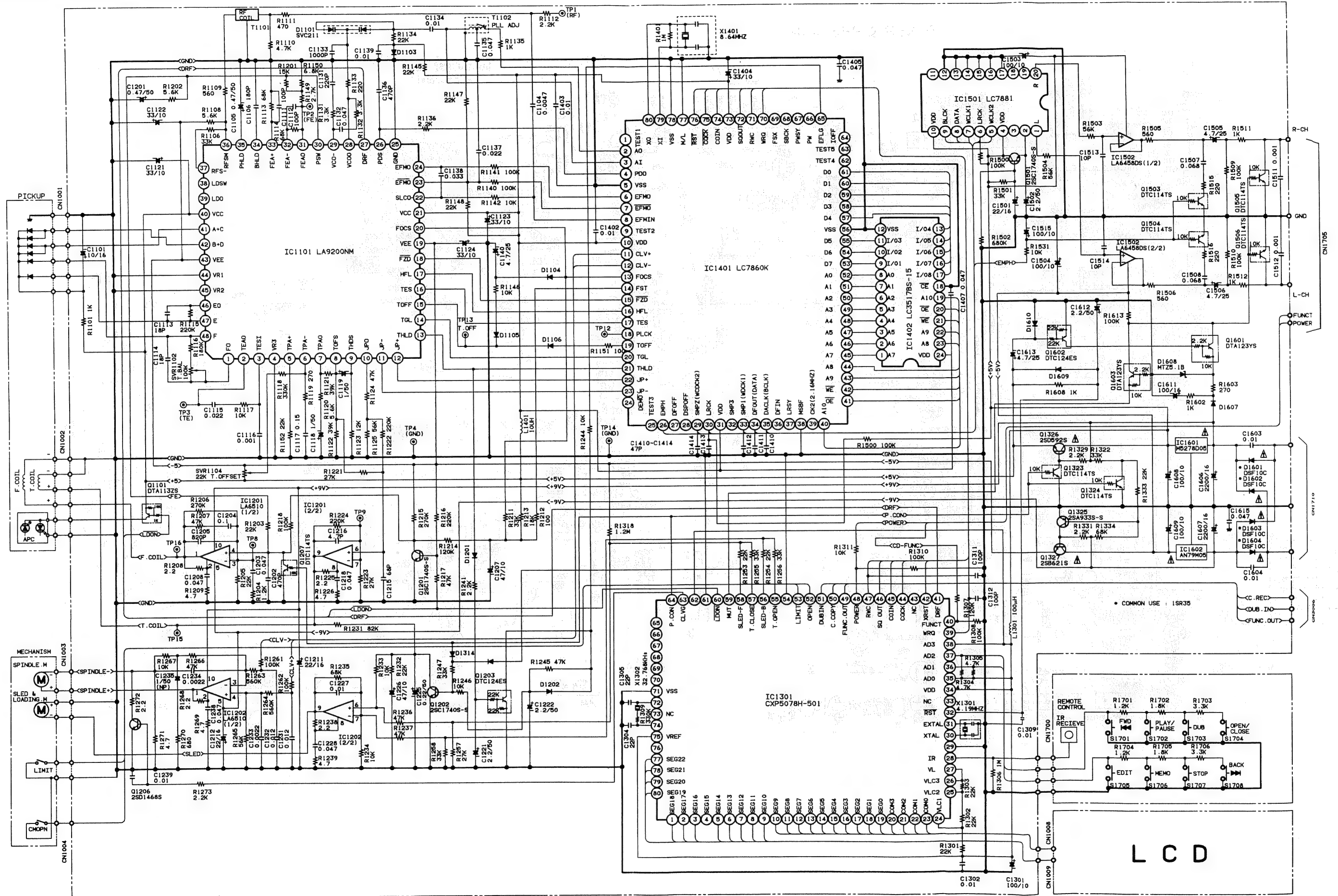
TUNER & PRE-AMP P.C.B
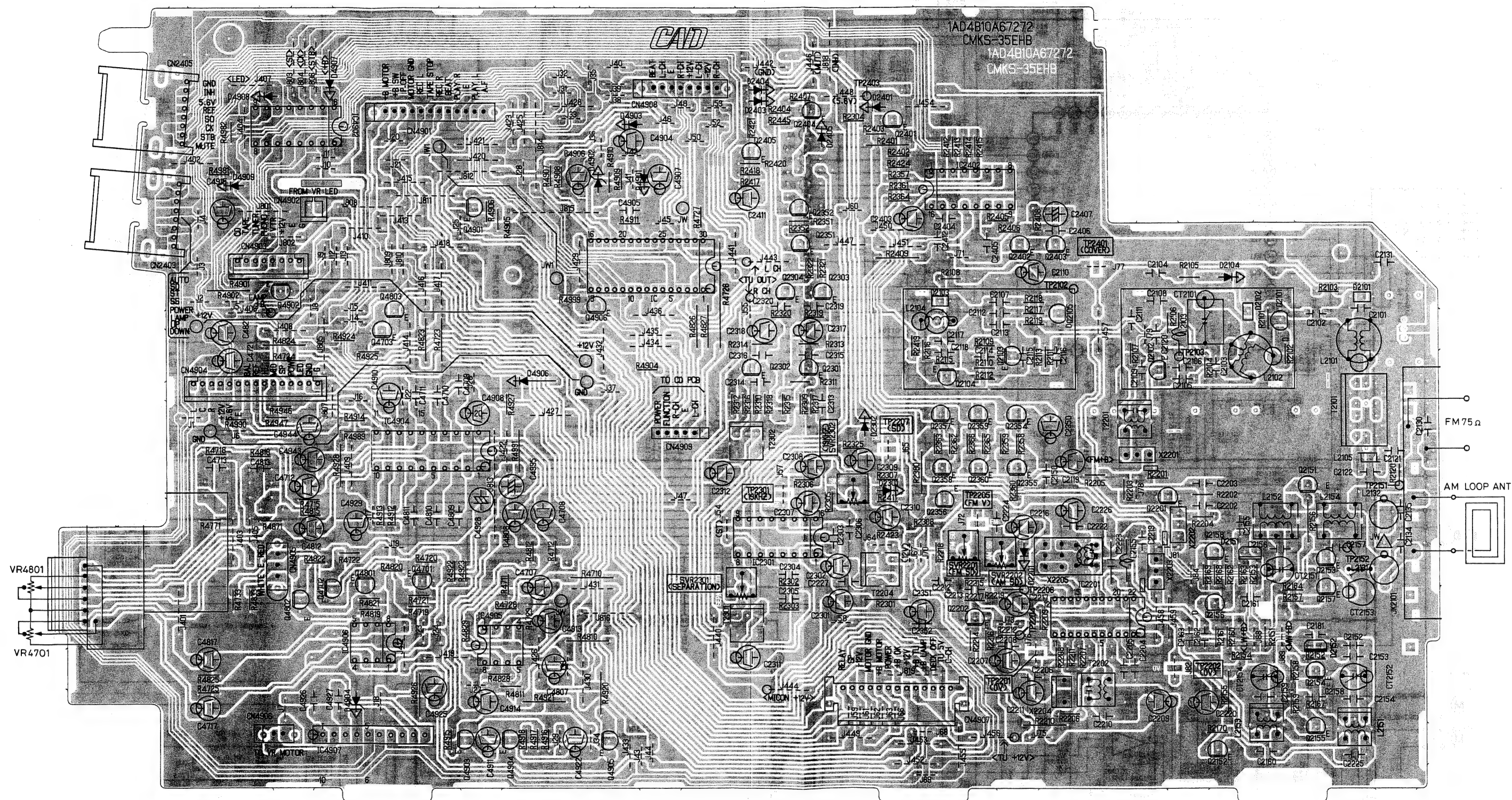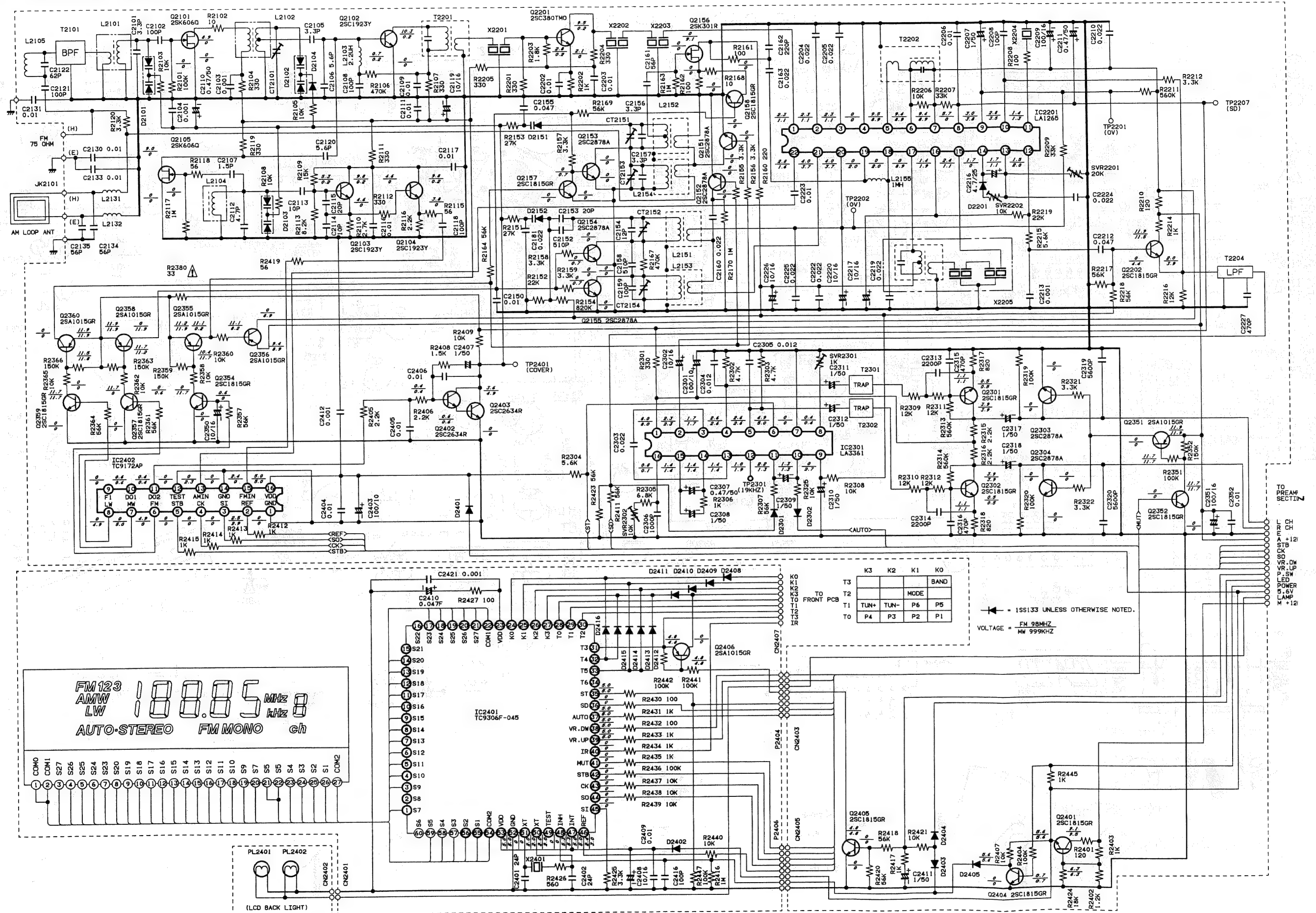
TAPE DECK AMP P.C.B

MECHANISM P.C.B

※ MARK PARTS ARE USED TO WEST GERMANY ONLY.

TO MECHA PCB

TO PRE AMP PCB

TO FRONT PCB

TO CD PCB

IC3700

NO.	PLAY	REC	OTHER
1	0	0	
2	0	0	
3	0.56	0.56	
4	4.8	4.8	
5	4.8	4.8	
6	0.72	0.69	6.1(HIDUB)
7	0	0	
8	4.8	4.8	
9	0	6.6	
10	0	0	
11	11.9	11.9	
12	11.8	11.8	
13	10.8	10.8	
14	0	0	
15	0.56	0.56	6.8(CRO2)
16	4.7	4.7	
17	4.7	4.7	
18	0.56	0.56	
19	0	0	
20	0.56	0.56	

IC3100

NO.	PLAY	REC
1	4.6	4.6
2	0	0
3	0	0
4	4.8	4.8
5	0	0
6	4.7	4.6
7	0	0
8	4.8	4.8
9	4.7	4.7
10	0	0
11	4.3	4.3
12	-	-
13	11.6	11.6
14	0	0
15	0	0
16	5.6	5.6
17	0	0
18	11.8	11.8
19	0	0
20	0	0
21	2.1	2.1
22	2.4	2.5
23	5.0	5.0
24	11.8	0
25	0	10.1
26	0	0
27	3.3	3.3
28	0.28	0.25
29	3.3	3.2
30	4.7	4.7
31	4.7	4.7
32	4.7	4.7
33	4.7	4.7
34	4.9	4.9
35	0	0.64
36	4.7	4.7
37	4.7	4.7
38	4.7	4.7
39	0	0
40	4.9	4.9
41	4.7	4.7
42	2.4	2.4

IC3701

NO.	PLAY	REC	OTHER
1	0	0	
2	4.8	4.8	
3	4.8	4.8	
4	0	0	
5	0	9.4	(DECK 1 PLAY)
6	0	9.4	(DECK 1 PLAY)
7	0	0	
8	4.7	4.7	
9	4.7	4.7	
10	4.7	4.7	
11	4.7	4.7	
12	11.8	0	(DECK 1 PLAY)
13	10.8	0	
14	11.9	11.9	

IC3730

NO.	PLAY	REC	OTHER
1	6.0	6.0	
2	11.9	11.9	
3	6.0	6.0	
4	6.0	6.0	
5	11.9	11.9	0(DOLBY ON)
6	6.1	6.1	
7	0.4	0.4	
8	6.1	6.1	
9	6.1	6.1	
10	0.4	0.4	
11	6.1	6.1	
12	11.7	0	
13	1.2	1.2	
14	6.0	6.0	
15	6.0	6.0	
16	6.0	6.0	

IC3751

NO.	PLAY	REC
1	0	0
2	0	0
3	0	0
4	0	11.8
5	0	0
6	10.9	10.9
7	0	0
8	0	0

IC3750

NO.	PLAY	REC	OTHER
1	0.36	0.35	5.6(HIDUB)
2	0.36	0.35	10.0(CRO2)
3	11.8	0	
4	6.1	6.1	
5	6.1	6.1	0.62(ALC DOING)
6	5.9	5.8	
7	0.4	0.4	
8	5.9	5.8	
9	6.0	6.0	
10	6.1	6.1	
11	6.1	6.1	
12	6.1	6.1	
13	1.2	1.2	
14	6.1	6.1	
15	1.2	1.2	
16	11.9	11.9	

VOLTAGE(V)
DECK 2 REC
DECK 2 PLAY

COMMON USE
Q3141 3160 3300 3303
2SC1815 or r2SC945
Q3302
2SA1015 or r2SA733
Q3100 3142 3192
RN1204 or BA1L4M
Q3140 3161 3194
RN2204 or BN1L4M
Q3191
RN2210 or BN1L3Z
Q3100 3112 3113 3114
3140 3141 3142 3143
3750
GMA01 or 1SS133
D3110 3111
DS442X or 1S2473
D3190
GZS5.6Y or MTZ5.6C
IC3701
MLC4066B or rTC4066BP
or rBU4066B or rPD4066BC
※ MARK PARTS ARE USED TO WEST GERMANY ONLY.

LCD P.C.B

PHONO·VIDEO TERMINAL P.C.B

LAMP P.C.B

PHONES & SW P.C.B

1AD4B10A67600
CMKS-35EHB

HEADPHONE

SP SW

DOLBY SW

1AD4B10A67471

VIDEO

R-CH L-CH   L-CH R-CH
PHONO   VIDEO

QXO160
TOSHIBA

LCD

FRONT P.C.B

STOP
S1702

EDIT
S1705

COMP REC
S1709

MEMO
S1706

P6

P5

P4

P3

P2

P1

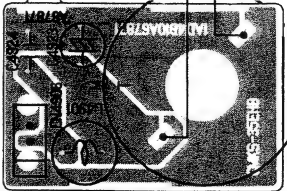TUNING

REC REC MUTE

COMP DUB

POWER
S2900

BALANCE

SANYO
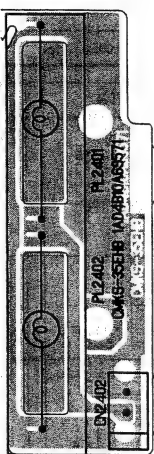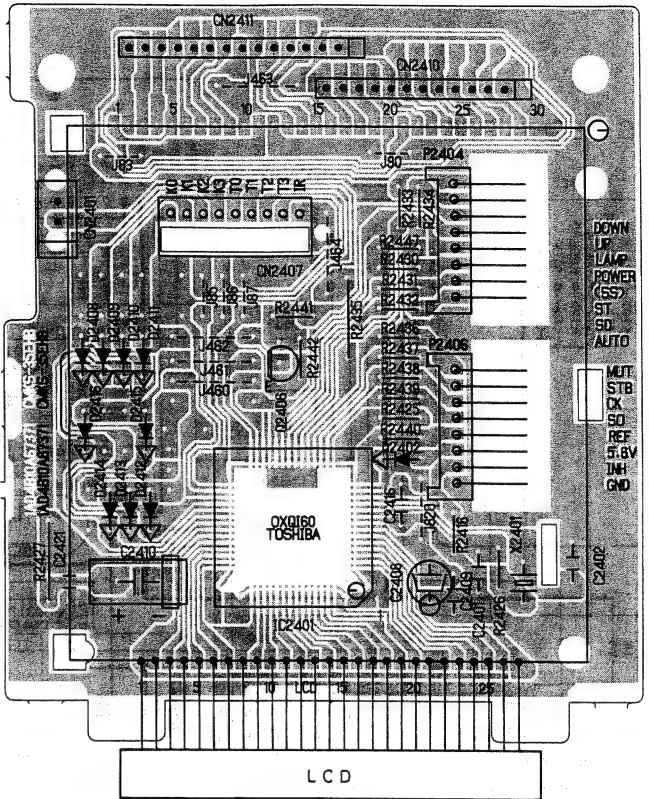
1AD4B10A67500 CMKS-35EHB
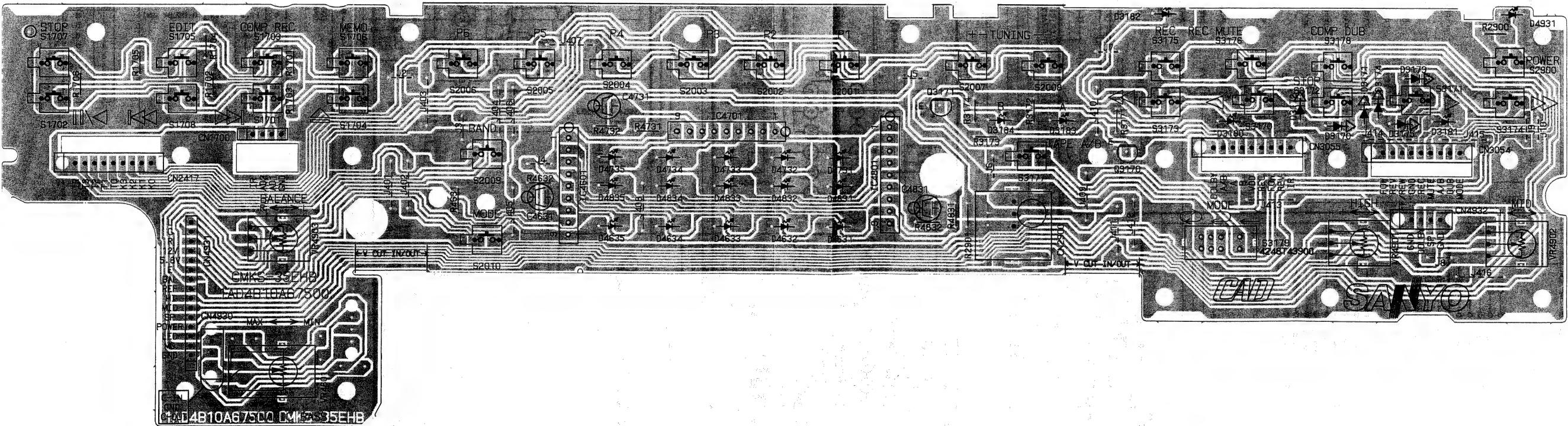
FUNCTION SW P.C.B
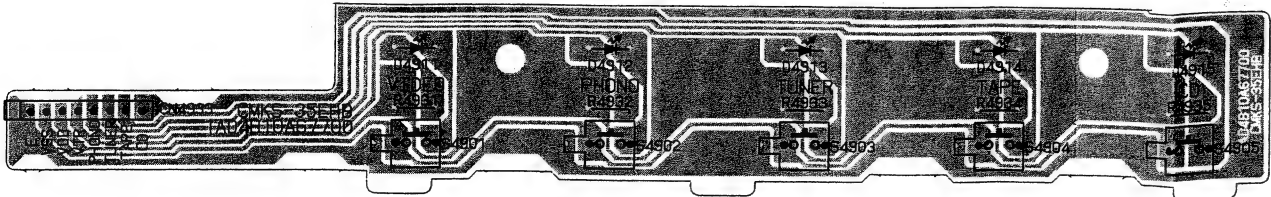
VOLUME
MOTOR
P.C.B

MOTOR
LED P.C.B
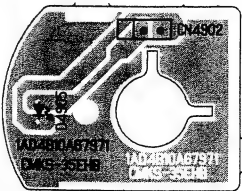
1AD4B10A67971
CMKS-35EHB

SCHEMATIC DIAGRAM (PRE-AMP.)
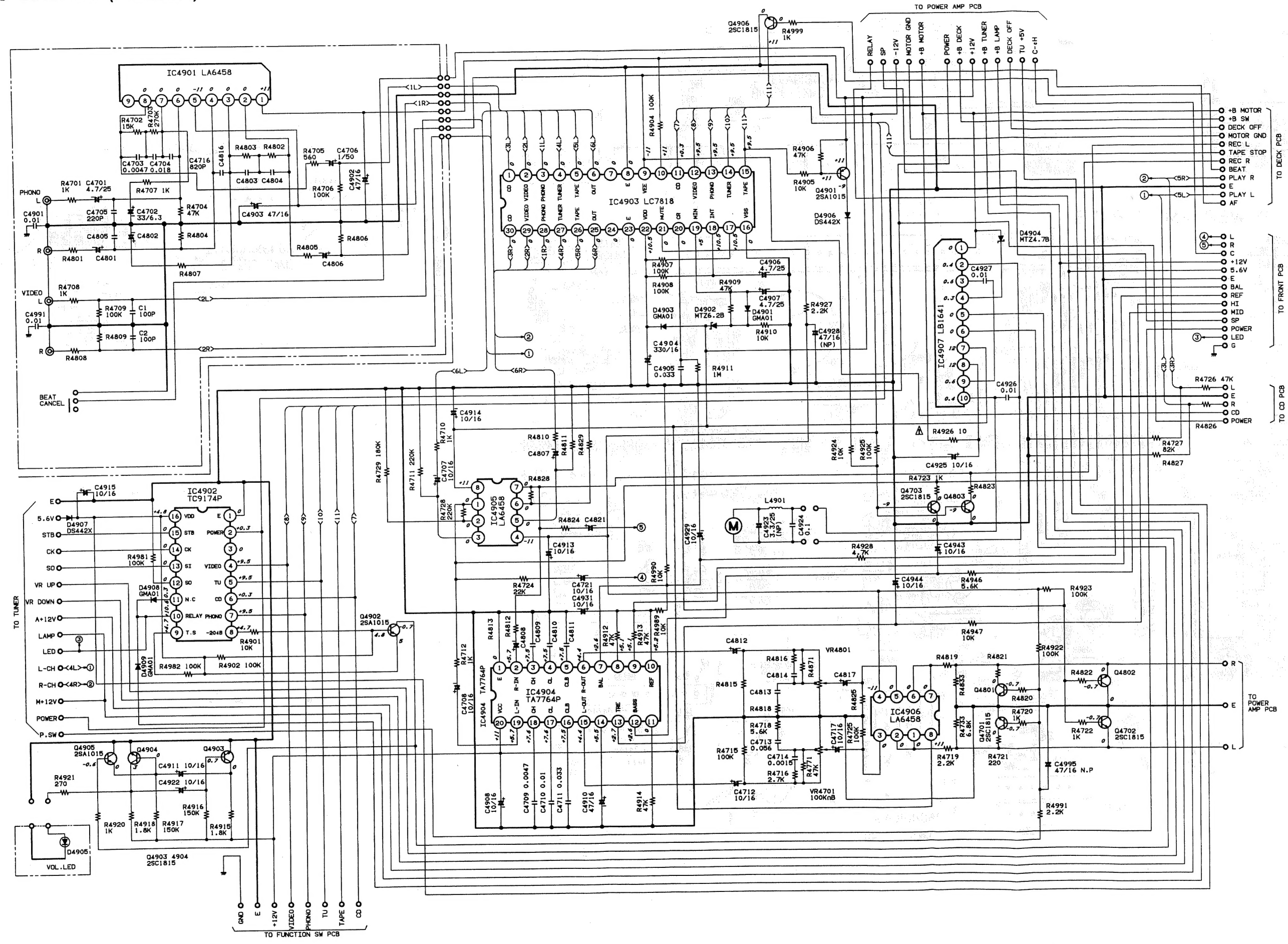
PHONO·VIDEO
TERMINAL P.C.B

SPEAKER TERMINAL P.C.B

1AD4B10A68272
CMKS-35EHB

CENTER
SPEAKER

FRONT
SPEAKER
L   R

POWER AMP 1 P.C.B

1AD4B10A68072
CMKS-35EHB

POWER AMP 2
P.C.B

1AD4B10A68172
CMKS-35EHB

THERMAL
FUSE 135°

P.T SECONDARY P.C.B

1AD4B10A68472
CMKS-35EHB

P.T PRIMARY P.C.B

F4901 250V T800mA

P.T

SP

L4902

1AD4B10A68372
CMKS-35EHB

BLUE
TP

AC CORD

TP

BROWN

AC240V
50Hz
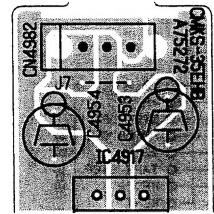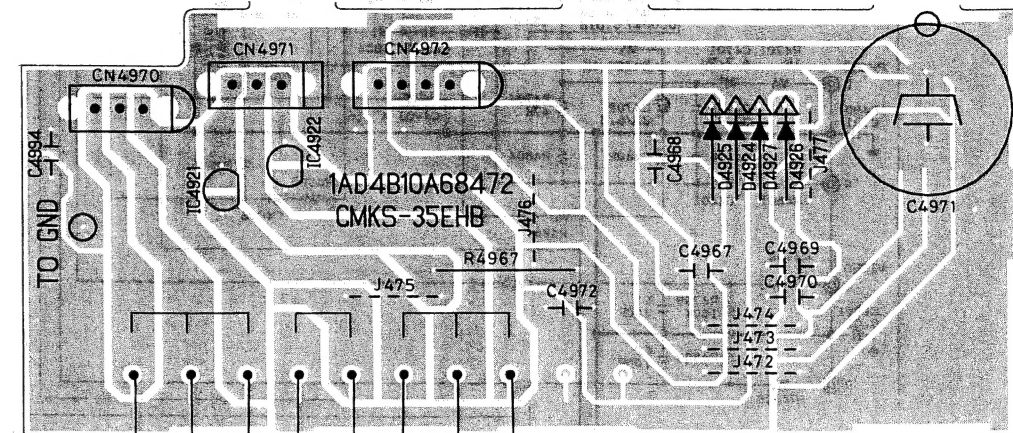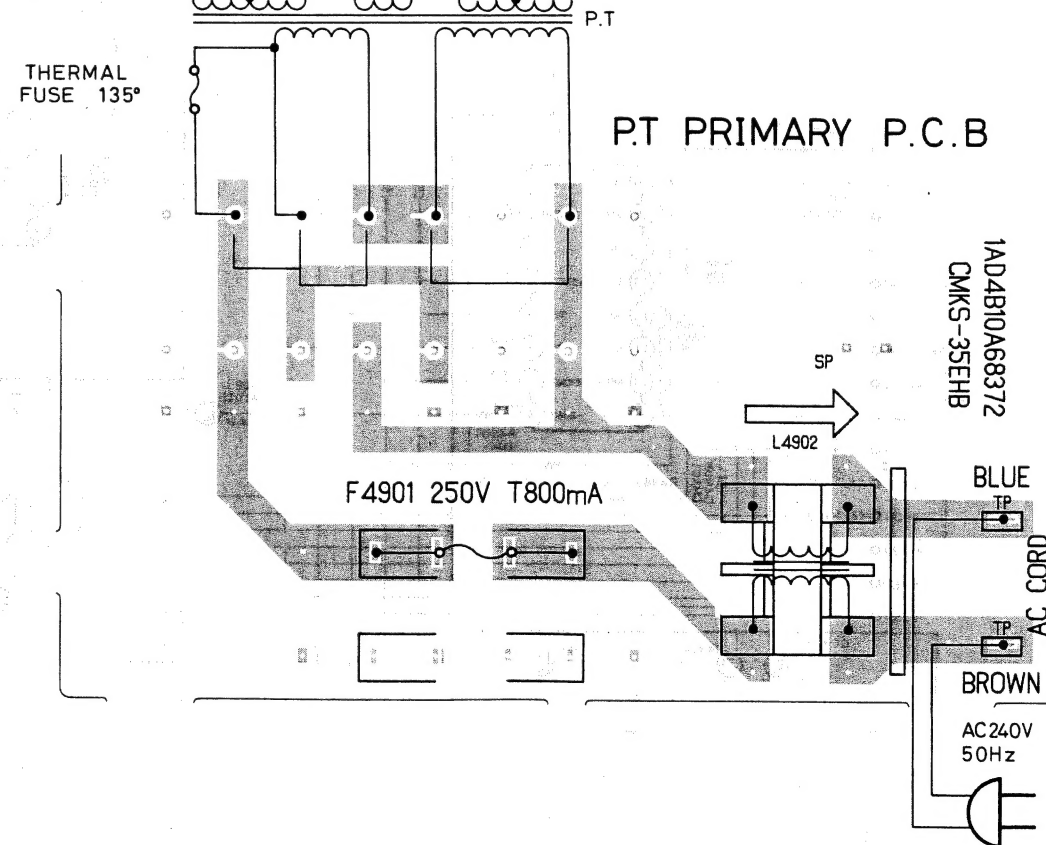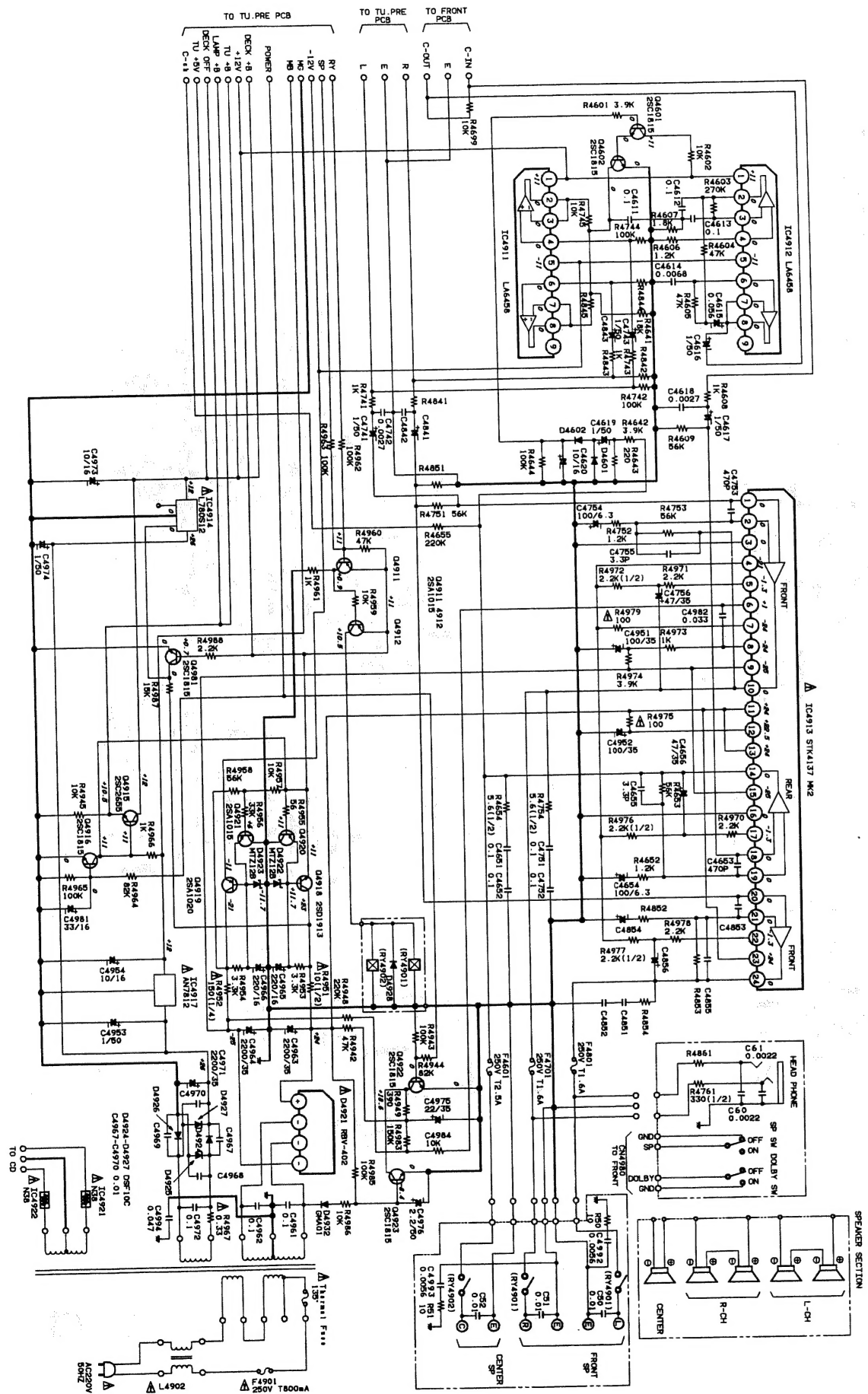
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HL06E201 / SERVICE MANUAL / 071293

SANYO
FISHER

P.T SECONDARY P.C.B

P.T PRIMARY P.C.B

AC-IN

SPEAKER TERMINAL P.C.B

CN4979

REGULATOR IC P.C.B

CN4982

CN4974

POWER AMP 1 P.C.B
CN4973

POWER AMP 2 P.C.B

CN4975 CN4970

CN4977

CN4978

PHONO·VIDEO TERMINAL P.C.B
CN4908

TUNER & PRE AMP P.C.B

CN4907

MECHANISM P.C.B

CN003

CN001

CN3001

TAPE DECK AMP P.C.B

CN002

CN3002

CN3003

CN3004 CN3005

CN3000

DIP

CD P.C.B

CN1009 CN1008 FINE CD SANYO

CN1700

CN1705

CN1710

CN3006

CN4909

CN003 CN3001 CN3702 CN3701

M

R/P HEAD
P.HEAD
F.HEAD
E.HEAD

TAPE DECK MECHANISM DECK2 DECK1

CN1002 CN1001 CN1003 CN1004

T.COIL
F.COIL
APC
SLED
SPINDLE

CMOPN
LIMIT

PICK-UP

CD MECHANISM

CN4902

CN4903

CN4902

CN4905

CN4904

CN4906

CN2405 CN2403

FRONT P.C.B

CN3055 CN3054

CN1709

CN2417 CN4931 CN4930
CN4932

LCD P.C.B

CN2410

CN2411

CN2407

CN2401

VOLUME MOTOR P.C.B
CN4906

CN4902

VOLUME LED P.C.B
CN4902

CN4981 CN4980

PHONES & SW P.C.B

CN2402 LAMP P.C.B

FUNCTION SW P.C.B
CN4933

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Osaka, Japan

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